

**THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

SEVEN NETWORKS, LLC,

§

v.

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CASE NO. 2:19-CV-115-JRG

APPLE INC.

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**CLAIM CONSTRUCTION
MEMORANDUM AND ORDER**

Before the Court is the Opening Claim Construction Brief (Dkt. No. 97) filed by Plaintiff SEVEN Networks, LLC (“Plaintiff” or “SEVEN”). Also before the Court are the Responsive Claim Construction Brief (Dkt. No. 100) filed by Defendant Apple Inc. (“Defendant” or “Apple”) as well as Plaintiff’s reply (Dkt. No. 102).

The Court held a hearing on March 13, 2020.

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I. BACKGROUND

Plaintiff alleges infringement of United States Patents No. 7,426,730, 9,369,539, 9,438,550, 9,473,914, 9,516,127, 9,603,056, 9,608,968, 9,648,557, 9,712,476, 9,712,986, 9,769,176, 10,027,619, 10,039,029, 10,091,734, 10,110,534, 10,135,771, and 10,243,962 (collectively, “the patents-in-suit”; individually, each patent-in-suit is referred to by its last three digits, such as “the ’730 Patent”). (Dkt. No. 97, Exs. A–P).

Herein, the Court addresses the patents-in-suit as to which the parties submit claim construction disputes. The parties note that they submit no disputed terms as to the ’968 Patent and the ’557 Patent. (Dkt. No. 82, Ex. B, at 27.)

The Court previously construed disputed terms in the ’127 Patent in *SEVEN Networks, LLC v. Google LLC, et al.*, No. 2:17-CV-442, Dkt. No. 342, 2018 WL 5263271 (E.D. Tex. Oct. 23, 2018) (“Google,” also sometimes referred to as “Google/Samsung”).

II. LEGAL PRINCIPLES

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Independ. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

“In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (citation omitted). “In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that

extrinsic evidence. These are the ‘evidentiary underpinnings’ of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.” *Id.* (citing 517 U.S. 370).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s invention. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court’s claim construction analysis is substantially guided by the Federal Circuit’s decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In

particular, the court reiterated that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314–17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim

language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Phillips, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; see *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319–24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), abrogated on other grounds by *Nautilus*, 134 S. Ct. 2120. “Indefiniteness must be proven by clear and convincing evidence.” *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

In general, prior claim construction proceedings involving the same patents-in-suit are “entitled to reasoned deference under the broad principals of *stare decisis* and the goals articulated by the Supreme Court in *Markman*, even though *stare decisis* may not be applicable *per se*.” *Maurice Mitchell Innovations, LP v. Intel Corp.*, No. 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006) (Davis, J.); see *TQP Development, LLC v. Intuit Inc.*, No. 2:12-CV-180, 2014 WL 2810016, at *6 (E.D. Tex. June 20, 2014) (Bryson, J.) (“[P]revious claim constructions in cases involving the same patent are entitled to substantial weight, and the Court has determined

that it will not depart from those constructions absent a strong reason for doing so.”); *see also Teva*, 135 S. Ct. at 839–40 (“prior cases will sometimes be binding because of issue preclusion and sometimes will serve as persuasive authority”) (citation omitted); *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1329 (Fed. Cir. 2008) (noting “the importance of uniformity in the treatment of a given patent”) (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996)).

III. AGREED TERMS

In their December 20, 2019 P.R. 4-3 Joint Claim Construction and Prehearing Statement (Dkt. No. 82, Ex. A) and in their March 2, 2020 Joint Claim Construction Chart Pursuant to P.R. 4-5(d) (Dkt. No. 104-1, at 40, 66 & 85), the parties submitted the following agreements:

<u>Term</u>	<u>Agreed Construction</u>
“is send” (’176 Patent, Claims 1, 14)	“is sent”
“connectivity rule” (’557 Patent, Claims 1, 14)	“rule regarding connecting to a network”
“remote device” (’619 Patent, Claims 22, 37, 51)	“a computing device that is physically distinct from the claimed device”

IV. DISPUTED TERMS IN U.S. PATENT NO. 10,110,534

The ’534 Patent, titled “Connection Architecture for a Mobile Network,” issued on October 23, 2018, and bears an earliest priority date of January 8, 2002. The Abstract of the ’534 Patent states:

A mobile device for accessing content stored on a remote server over a mobile network includes a processor configured to direct the mobile device to send a request directing a management server to initiate a transaction.

A. “message”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“communication”	“communication containing content from a user, such as email data, calendar data, contact information data, task data, notes data, electronic document data, user file data or any other type of data from a user”

(Dkt. No. 82, Ex. B, at 52; Dkt. No. 97, at 1.) The parties submit that this term appears in Claims 1, 2, 6, 10, 11, 12, 16, and 20 of the ’534 Patent. (Dkt. No. 82, Ex. B, at 52.)

Plaintiff argues that Defendant’s proposal contradicts the specification and the claims. (Dkt. No. 97, at 1–2.) For example, Plaintiff cites Claim 1 and argues that “[a] simple message comprising a data query is not user content, such as email data or calendar data, as improperly required by Apple’s construction.” (*Id.*, at 2.) Plaintiff also argues claim differentiation as to Claim 2. (*Id.*)

Defendant responds that “[i]n an effort to narrow disputes, Apple is no longer seeking construction of ‘message.’” (Dkt. No. 100, at 37.) Plaintiff’s reply brief does not address this term. (*See* Dkt. No. 102.) At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

Because Defendant no longer requests construction of this term, and because the parties’ proposed constructions reflect agreement that a “message” is a “communication,” the Court hereby construes “message” to mean “communication.”

B. “stored”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning; to the extent construction is necessary “placed or retained in a device”	Plain and ordinary meaning, which is “placed or retained in a device for potential future use” ¹

(Dkt. No. 82, Ex. B, at 51; Dkt. No. 97, at 3; Dkt. No. 100, at 36; Dkt. No. 104-1, at 2.) The parties submit that this term appears in Claims 1 and 11. (*Id.*)

(1) The Parties’ Positions

Plaintiff argues that “stored” “is a well-understood term that needs no construction,” and “[t]o the extent the Court construes this term, only SEVEN’s construction is consistent with the plain and ordinary meaning of ‘stored’ as shown by multiple technical dictionaries, including those cited by Apple.” (Dkt. No. 97, at 3.) Plaintiff argues that the general-purpose dictionaries cited by Defendant do not define “stored” in the relevant technical context. (*Id.*, at 5.) Plaintiff submits that “SEVEN’s construction is also consistent with the intrinsic evidence.” (*Id.*, at 4.)

Defendant responds that its proposed construction is supported by contemporaneous dictionary definitions as well as by surrounding claim language, which recites storing the data so that a device can later send a query for that stored data. (Dkt. No. 100, at 36–37.) Defendant also submits that “Apple’s construction does not require that the stored data is actually used, only that it is stored *for use in the future*.” (*Id.*, at 37.)

Plaintiff replies that “[i]f construction is necessary, adding ‘for potential future use’ is vague and unnecessary.” (Dkt. No. 102, at 1.) Plaintiff also argues: “In IPRs [*Inter Partes* Reviews)], Apple argues data can be ‘temporarily’ stored, but here Apple argues that data that

¹ Defendant previously proposed: “Plain and ordinary meaning, which is ‘to leave or keep for future use.’” (Dkt. No. 82, Ex. B, at 51.)

‘momentarily passes through the phone’s camera’ is not stored. Apple’s arbitrary temporary versus momentary distinction has no support.” (*Id.* (citations omitted).)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

As a threshold matter, Plaintiff cites constructions of the term “stored” in other patents,² but “claims of unrelated patents must be construed separately.” *e.Digital Corp. v. Futurewei Techs., Inc.*, 772 F.3d 723, 727 (Fed. Cir. 2014). The other constructions cited by Plaintiff are therefore of limited, if any, persuasive value in the present case.

Claim 1 of the ’534 Patent, for example, recites (emphasis added):

1. A server that manages transactions between first and second devices, the server comprising:

a communication interface;

a processor communicatively coupled to the communication interface; and

a memory communicatively coupled to the processor, the memory containing instructions executable by the processor, whereby the server is operable to:

receive a first connection associated with a first device;

receive a first message from the first device over the first connection;

generate a second message for a second device based on the first message from the first device;

send the second message to the second device;

receive a second connection associated with the second device, wherein the first connection includes a connection that is initiated by the first device, wherein the second connection includes a connection that is initiated by the second device;

receive a third message from the second device, wherein the third message is generated by the second device in response to receipt of the second message, wherein the third message contains a latest version of data *stored* at

² See *Positive Techs. Inc. v. Toshiba Am. Consumer Prods., LLC*, No. 2:07-CV-67, 2008 WL 2627687, at *5 (E.D. Tex. July 1, 2008) (“‘storing’ recites a well-understood function to one of skill in the art”); see also *Fisher-Rosemount Sys., Inc. v. Invensys Sys., Inc.*, No. A-13-CA-587-SS, 2015 WL 1275910, at *9 (W.D. Tex. Mar. 19, 2015) (“Invensys concedes ‘storing an indication’ has a well-understood meaning to a person of ordinary skill in the art.”).

the second device and wherein the first message comprises a *data query* that is transmitted from the first device *for the latest version of the data stored* at the second device;
generate a fourth message, wherein the fourth message includes data from the third message; and
send the fourth message to the first device over the first connection.

The recital of a “data query” for the “latest version of the data stored” suggests that “stored” data can be subsequently retrieved. The other independent claim here at issue, Claim 11 of the ’534 Patent, is similar in this regard. The specification discloses that “Fig. 5 is a block diagram showing how data is *stored* in a mobile device,” and “[t]he mobile client 98 can *store* the last received contact list portion 112 in memory 100,” and “when the mobile device 21 goes off-line, a user is still able to view the latest information received from personal client 40.” ’534 Patent at 2:19–20 & 7:36–44 (emphasis added).

The parties cite various dictionary definitions, such as technical dictionaries that define “store” as follows:

store (A) A device into which data can be *placed*, in which they can be retained, and *from which they can be retrieved*. Note: This term is the equivalent of the term storage in British (U.K.) usage. (B) *To place* data into a device as in definition (A). (C) *To retain* data in a device as in definition (A).

(Dkt. No. 97, Ex. S, *The Authoritative Dictionary of IEEE Standards Terms* 1113 (7th ed. 2000) (emphasis modified).)

store — 1. To *retain* information in a device *from which the information can later be withdrawn*. 2. To *introduce* information into the device in (1) above. 3. A British synonym for storage.

(*Id.*, Ex. T, *Modern Dictionary of Electronics* 739 (7th ed. 1999).)

The parties also discuss a general-purpose dictionary that defines “store” as a verb as meaning “to place or leave in a location (as a warehouse, or library, or computer memory) for

preservation or later use or disposal” and as a noun as meaning “something that is stored or kept for future use.” (*Id.*, Ex. W, *Merriam-Webster’s Collegiate Dictionary* 1156 (10th ed. 2002); *see id.*, Ex. X, *The New Oxford American Dictionary* 1679 (2001) (“a place where things are kept for future use or sale: [e.g.,] a grain store”) (emphasis omitted).)

Thus, Defendant’s proposed interpretation is largely consistent with the above-discussed claim language, specification disclosures, and the technical and general-purpose dictionary definitions cited by the parties. The *Amgen* case cited by Plaintiff does not compel otherwise. *See Amgen Inc. v. Sandoz*, No. 14-CV-04741-RS, 2016 WL 4137563, at *9–*10 (N.D. Cal. Aug. 4, 2016) (rejecting proposal of “for purposes of stem cell mobilization” because “there is no textual basis to import a purpose limitation into the claim”). Likewise, Plaintiff fails to show why the absence of any proposed construction from Defendant in an IPR proceeding precludes Defendant from arguing for a construction in the present litigation. (*See* Dkt. No. 97, Ex. R, Petition for *Inter Partes* Review of United States Patent No. 10,110,534, at 5–7.)

Nonetheless, Defendant’s proposal of “potential future use” is potentially confusing, as demonstrated for example by Plaintiff’s concern that Defendant’s proposal might exclude data that is “temporarily stored.” (*See* Dkt. No. 97, at 4–5.) Defendant submits that its proposed construction “does not impose a time limit; temporarily storing information is still storing the information.” (Dkt. No. 100, at 37.) To minimize confusion, however, instead of referring to potential use, the construction should instead focus on the manner of storing, explaining that the manner of storing facilitates future retrieval.

The Court therefore hereby construes “**stored**” to mean “**placed or retained in a device in a manner that facilitates future retrieval.**”

C. “receiving/receive a second connection associated with the second device”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
The claims require an order such that “receive/receiving a second connection associated with the second device” is after “generating a second message for a second device...” and “send/sending the second message to the second device”	Plain and ordinary meaning, which is “receive a second connection, where that second connection is associated with the second device”

(Dkt. No. 82, Ex. B, at 52–53; *see* Dkt. No. 97, at 5; Dkt. No. 100, at 38; *see* Dkt. No. 104-1, at 2 & 4.) The parties submit that this term appears in Claims 1 and 11 of the ’534 Patent. (*Id.*)

(1) The Parties’ Positions

Plaintiff argues that antecedent basis relationships in these claims require an ordering and, moreover, “the ’534 specification is also consistent with the ordering of these elements.” (Dkt. No. 97, at 6.)

Defendant responds that “[o]n their face, the claims here do not require the specific ordering SEVEN contends.” (Dkt. No. 100, at 38.) “Apple agrees that the fourth step must occur after the third step, because the claimed server device cannot ‘send’ the second message until it has ‘generate[d]’ the second message. In contrast, while the fifth step *could* occur after [the] fourth step, nothing in the claims or patent require or even suggest that sequence.” (*Id.*, at 39.)

Plaintiff replies that antecedent basis as well as the plain language of the claims require an order. (*See* Dkt. No. 102, at 1–2.)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

“As a general rule, ‘[u]nless the steps of a method [claim] actually recite an order, the steps are not ordinarily construed to require one.’” *Mformation Techs., Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014) (quoting *Interactive Gift Express, Inc. v. Compuserve, Inc.*,

256 F.3d 1323, 1342 (Fed. Cir. 2001)); *see Avago Techs. Gen. IP (Singapore) Pte Ltd. v. Asustek Computer, Inc.*, No. 15-CV-04525-EMC, 2016 WL 3029674, at *12 (N.D. Cal. May 27, 2016) (noting case law supporting, and absence of any case law refuting, that “order can be required by a system/apparatus claim”).

Courts apply a two-part test to determine whether a particular order of steps is required: “First, we look to the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written,” and “[i]f not, we next look to the rest of the specification to determine whether *it* directly or implicitly requires such a narrow construction.” *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369–70 (Fed. Cir. 2003) (citation omitted).

In Claim 1 of the ’534 Patent, Plaintiff argues that the steps italicized below (which Defendant refers to as the third, fourth, and fifth steps) must be performed in the order recited:

1. A server that manages transactions between first and second devices, the server comprising:
 - a communication interface;
 - a processor communicatively coupled to the communication interface; and
 - a memory communicatively coupled to the processor, the memory containing instructions executable by the processor, whereby the server is operable to:
 - receive a first connection associated with a first device;
 - receive a first message from the first device over the first connection;
 - generate a second message for a second device based on the first message from the first device;*
 - send the second message to the second device;*
 - receive a second connection associated with the second device, wherein the first connection includes a connection that is initiated by the first device, wherein the second connection includes a connection that is initiated by the second device;*
 - receive a third message from the second device, wherein the third message is generated by the second device in response to receipt of the second message, wherein the third message contains a latest version of data stored at the second device and wherein the first message comprises a data query that is transmitted from the first

device for the latest version of the data stored at the second device;
generate a fourth message, wherein the fourth message includes data from the third message; and
send the fourth message to the first device over the first connection.

Nearly identical third, fourth, and fifth steps appear in Claim 11 of the '534 Patent, and the parties present the same arguments as to both claims. *See* '534 Patent, Cl. 11 ("generating a second message for a second device based on the first message from the first device"; "sending the second message to the second device"; "receiving a second connection associated with the second device").

Defendant agrees that the third step must occur before the fourth step. Defendant argues that the fifth step, "receive a second connection associated with the second device," need not be performed in any particular order relative to the third step or the fourth step. Plaintiff submits that "[t]he specification teaches that a server may generate a 'trigger' ('second message') for a second device, which causes the second device to initiate a connection with the server." (Dkt. No. 97, at 6.) The portion of the specification cited by Plaintiff discloses:

The personal client 40 monitors the user's mailbox in email server 34 for new emails. If a new email is detected, the personal client 40 *sends a trigger 132* to the mobile device 21 through the management server 28. The trigger 132 may be a message with no payload that simply tells the mobile device 21 that something new has happened in the user's mailbox. *The trigger 132 causes the mobile device 21 to establish the mobile connection 23 with the management server 28* and then send a synchronization request transaction 134 to the personal client 40.

'534 Patent at 7:64–8:6 (emphasis added).

Nonetheless, Plaintiff fails to justify limiting the claim language to this disclosed embodiment. Instead, because no apparent order is required, "as a matter of logic or grammar" or otherwise, no ordering is required as between the fifth step and the third or fourth step. *Altiris*, 318 F.3d at 1369, *see Mformation*, 764 F.3d at 1398.

The Court therefore hereby finds, as to Claims 1 and 11 of the '534 Patent, that “[generate/generating] a second message for a second device based on the first message from the first device” must be performed before “[send/sending] the second message to the second device.”

V. DISPUTED TERMS IN U.S. PATENT NO. 9,516,127

The '127 Patent, titled “Intelligent Alarm Manipulator and Resource Tracker,” issued on December 6, 2016, and bears an earliest priority date of March 25, 2013. The Abstract of the '127 Patent states:

Systems and methods for tracking resources used by triggers such as alarms and timers that are used by mobile applications to schedule tasks and intelligently manipulating the timing of the triggers to optimize usage of resources such as, but not limited to: network, battery, CPU and/or memory are disclosed. In one embodiment, an intelligent alarm manipulator and resource tracker tracks triggers from multiple applications on a mobile device and corresponding use of resources resulting from the triggers on a mobile device. The intelligent alarm manipulator and resource tracker further determines correlations between the triggers and the corresponding use of the resources on the mobile device and manipulates, based on the correlations, timing or frequency of some or all of the triggers to optimize the use of the resources on the mobile device.

D. “optimize” Terms

“optimize traffic” (’127 Patent, Claims 24, 33, 42)	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“adjust traffic to conserve network or mobile device resources”	“schedule traffic to conserve network or mobile device resources” ³

³ Defendant previously proposed: “schedule transmissions in a manner that results in the conservation of network or mobile device resources as a result of the transmissions.” (Dkt. No. 82, Ex. B, at 12.)

“optimize background traffic” (’127 Patent, Claims 24, 33, 42)	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“adjust background traffic to conserve network or mobile device resources”	“schedule background traffic to conserve network or mobile device resources” ⁴
“receive a selection from a user whether to optimize traffic” (’127 Patent, Claims 33, 42)	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“receive a selection from a user whether to adjust traffic to conserve network or mobile device resources”	Apple proposes construing “optimize traffic” separately. Separate from that, this term needs no further construction.

(Dkt. No. 82, Ex. B, at 12 & 17–19; Dkt. No. 97, at 7; Dkt. No. 104-1, at 6, 9 & 11.)

(1) The Parties’ Positions

Plaintiff submits that it proposes constructions previously adopted by the Court. (Dkt. No. 97, at 7.) Plaintiff argues that “[a]lthough the patent teaches that transmissions may be optimized through scheduling, it teaches many other methods to optimize traffic,” such as “sending [data] opportunistically as conditions warrant.” (*Id.*)

Defendant responds that “the dispute is limited to whether Apple’s use of the word ‘scheduling’ unnecessarily limits the claim, as SEVEN advocates. Due to SEVEN’s statements in an IPR proceeding that were not before the Court in the prior *Markman* proceeding, SEVEN is wrong.” (Dkt. No. 100, at 6.)

⁴ Defendant previously proposed: “schedule background transmissions in a manner that results in the conservation of network or mobile device resources as a result of the transmissions.” (Dkt. No. 82, Ex. B, at 17–18.)

Plaintiff replies that “the IPR response does not even contain the word ‘schedule,’” and “[t]he supposed ‘disclaimers’ in the IPR response are in statements relating to different claim elements, and in quotes and characterizations of the petitioner’s argument, *not* statements or arguments by SEVEN.” (Dkt. No. 102, at 2–3.)

At the March 13, 2020 hearing, the parties presented oral arguments as to these terms, particularly as to the IPR proceedings discussed in the parties’ briefing.

(2) Analysis

As a general matter, “statements made by a patent owner during an IPR proceeding can be relied on to support a finding of prosecution disclaimer during claim construction.” *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017); *see id.* at 1361.

During IPR proceedings as to the ’127 Patent, Plaintiff argued as follows regarding the “Jiang” reference (United States Patent Application Publication No. 2012/0260118):

[T]he Petition fails to demonstrate this limitation is present in Jiang because Jiang shows applications being turned off, not optimized.

* * *

The Petition fails to identify any language, in any of the eight paragraphs of Jiang that it cites, demonstrating user selection whether to optimize traffic of an application.

The Petition reproduces figure 4 from Jiang, but this figure does not show a selection of applications for *optimization* of background traffic, but rather a way to “*turn off* [] background tasks” for an application. Pet., 55 (citing Ex. 1007 [(Jiang)], Fig. 4).

(Dkt. No. 100, Ex. 9, IPR2018-01108, Patent Owner SEVEN Networks, LLC’s Preliminary Response, at 51–52; *see id.*, at 50–52; *see also id.*, Ex. 7, Petition for *Inter Partes* Review of United States Patent No. 9,516,127, at i, 16 & 54–55.)

Plaintiff thus argued in these IPR proceedings that turning off an application is not “optimizing” an application. Defendant fails to show, however, how this amounts to a definition or disclaimer that limits “optimizing” to “scheduling.” Instead, the specification explains various manners in which traffic can be optimized, such as in the disclosure cited by Plaintiff in the present case:

In general, the disclosed distributed proxy and cache system allows optimization of network usage, for example, by *serving requests from the local cache* 185, the local proxy 175 reduces the number of requests that need to be satisfied over the network 106. Further, the local proxy 175 and the proxy server 125 may *filter irrelevant data* from the communicated data. In addition, the local proxy 175 and the proxy server 125 can also accumulate low priority data and send it in batches to avoid the protocol overhead of sending individual data fragments. The local proxy 175 and the proxy server 125 can also *compress or transcode* the traffic, reducing the amount of data sent over the network 106 and/or 108. The signaling traffic in the network 106 and/or 108 can be reduced, as the networks are now used less often and the network traffic can be synchronized among individual applications.

With respect to the battery life of the mobile device 150, by *serving application or content requests from the local cache* 185, the local proxy 175 can reduce the number of times the radio module is powered up. The local proxy 175 and the proxy server 125 can work in conjunction to accumulate low priority data and send it in batches to reduce the number of times and/or amount of time when the radio is powered up. The local proxy 175 can synchronize the network use by performing the *batched data transfer* for all connections simultaneously.

’127 Patent at 10:59–11:17 (emphasis added).

Further, Plaintiff persuasively argued at the March 13, 2020 hearing that the patentee distinguished the Jiang reference based on the limitation that what is optimized is traffic for applications *executing* in the background (such that turning off the applications would not meet the limitation). (Dkt. No. 100, Ex. 9, IPR2018-01108, Patent Owner SEVEN Networks, LLC’s Preliminary Response, at 52.) Because the statements at issue “are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary

meaning of the term” *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1332 (Fed. Cir. 2004).

On balance, Defendant fails to justify departing from the Court’s prior analysis and construction of the same disputed term (“optimize background traffic”) in the same ’127 Patent in *Google*. See *Google*, slip op. at 22–28. The opinion of Defendant’s expert, Dr. Stephen Wicker, does not compel otherwise. (Dkt. No. 97, Ex. Y, Dec. 20, 2019 Wicker Decl., at ¶ 85 (opining that to “optimize” in this context means to “schedule”).) Finally, the parties present no dispute as to the term “receive a selection from a user whether to optimize traffic” apart from the dispute as to the constituent term “optimize traffic.”

The Court therefore hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“optimize traffic”	“adjust traffic to conserve network or mobile device resources”
“optimizing background traffic”	“adjust background traffic to conserve network or mobile device resources”
“receive a selection from a user whether to optimize traffic”	Plain meaning (apart from the Court’s construction of “optimize traffic”)

E. “the power save mode is based on a battery level of the mobile device”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning	“the ability to enter power save mode depends upon the battery level of the mobile device”

(Dkt. No. 82, Ex. B, at 13; Dkt. No. 97, at 9; Dkt. No. 100, at 7; Dkt. No. 104-1, at 6.) The parties submit that this term appears in Claims 24, 33, and 42 of the ’127 Patent. (*Id.*)

(1) The Parties' Positions

Plaintiff argues that “Apple’s construction seeks to rewrite the claims to import limitations into the claims that are not taught in the specification.” (Dkt. No. 97, at 9.) In particular, Plaintiff argues that the specification discloses that “the power save mode can be turned on or off by a user selection.” (*Id.*)

Defendant responds that “Apple’s interpretation is based on the plain language of the claims and the context they provide.” (Dkt. No. 100, at 8.) Defendant also submits that “[t]he term ‘power save mode’ is only used in the claims,” and “the ’127 patent has no relevant embodiments, preferred or otherwise.” (*Id.*) Defendant also cites an institution decision by the PTO’s Patent Trial and Appeal Board (“PTAB”) in IPR proceedings. (*See id.*, at 9.)

Plaintiff replies that “[t]he [PTAB institution decision cited by Defendant] addresses different claims requiring the power save mode to be entered ‘based on a backlight status and sensed motion of a mobile device’ and exited ‘when the backlight of the mobile device turns on or motion of the mobile device is sensed.’” (Dkt. No. 102, at 4.)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Claim 33 of the ’127 Patent, for example, recites (emphasis added):

33. A mobile device, comprising:

a memory;

a processor in communication with the memory and configured to execute instructions stored in the memory to:

receive a selection from a user whether to optimize traffic of a first application executing in a background of the mobile device;

optimize background traffic of the first application;

receive a selection from a user whether to enter a power save mode, where *the power save mode is based on a battery level of the mobile device*;

upon selection to enter the power save mode, adjust a timing of activities of a second application executing in the background of the mobile device to reduce usage of at least one resource of the mobile device;

exit the power save mode, wherein the power save mode is exited based on a battery level or in response to the user directing the mobile device to exit the power save mode.

Defendant argues that the disputed term modifies the preceding recital of “enter[ing] a power save mode” (Dkt. No. 100, at 8), but Defendant fails to demonstrate why this must be so. Also, no limitation regarding “ability” (which appears in Defendant’s proposed construction) is apparent on the face of the claim. The other claims at issue are similar in this regard. *See* ’127 Patent at Cls. 24 & 42.

Plaintiff cites disclosures in the specification regarding conserving resources:

The intelligent alarm manipulator and resource tracker 114, which is described in detail in FIG. 2, can monitor and track triggers from multiple applications on the mobile device 150 and corresponding usage of resources to determine correlations between triggers and resource usage and use such correlations to manipulate the timing of triggers to *conserve resources* on the mobile device.

* * *

For example, if alarm 1 from application 202 uses a network resource every one minute, and alarm 2 from application 204 uses the same network resource every two minutes, based on the two associations, the alarm/timer manipulator 222 can manipulate alarms 1 and 2 to fire off at the same time every one and a half minutes (average of 1 minute and 2 minutes), or every two minutes (maximum of 1 minute and 2 minute), thereby optimizing the use of network resources.

In one implementation, the alarm manipulator 222 can manipulate timing of alarms/timers by delaying at least one alarm/timer or accelerating at least one alarm/timer to synchronize the alarms/timers. In another implementation, the alarm manipulator 222 can manipulate timing of alarms/timers by modifying initial values of the corresponding alarms/timers in the operating system.

* * *

In one embodiment, the resource usage pattern detector 218 can determine, from the tracking, patterns in which the triggers fire off, and the patterns can be used by the alarm manipulator 222 in manipulating the timing of some of the triggers to prevent the triggers from firing off when user activity is not predicted or when the battery level is below a threshold.

* * *

In one embodiment, the intelligent alarm manipulator and resource tracker module 114 may be operational when the mobile device is on battery power (e.g., the *mode selector* can be *configured* to turn on the resource optimization by default when on battery power). When the mobile device is being charged to an electrical outlet, some of the components such as the resource tracker may be running. Alternately, the intelligent alarm manipulator and resource tracker module 114 may be operational regardless of whether the device is charging or on battery.

'127 Patent at 13:14–20, 18:8–22, 18:38–44 & 19:4–14 (emphasis added). On one hand, these disclosures in the specification do not refer to a “power save mode,” and Plaintiff does not show that the “mode selector” in the specification corresponds to the “power save mode” recited in the claims.⁵

On the other hand, these disclosures demonstrate that operations can depend upon user configuration as well as device conditions. Thus, even when a user has selected to enter a power save mode, the power save mode itself can vary depending on battery level. This is readily apparent based on the claim language itself. The opinions of Plaintiff’s expert, Dr. Michael Goodrich, are further persuasive in this regard. (*See* Dkt. No. 97-57, Dec. 20, 2019 Goodrich Decl., at ¶¶ 91–95.)⁶

Based on the foregoing, the Court hereby expressly rejects Defendant’s proposed construction, and no further construction is necessary. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *see also*

⁵ The PTAB reached a similar conclusion, finding that provisional application disclosures regarding a “mode selector” did not describe the claimed “power save mode.” (*See* Dkt. No. 100, Ex. 10, IPR2018-01108, Nov. 28, 2018 Decision, at 28–29.)

⁶ The deposition testimony of Dr. Goodrich cited by Defendant (such as that manipulation of alarms and timers might not necessarily result in power saving) does not compel otherwise. (*See* Dkt. No. 100, Ex. 11, Jan. 15, 2020 Goodrich dep. at 99:21–100:22.)

Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *ActiveVideo Networks, Inc. v. Verizon Commcn’s, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

The Court accordingly hereby construes “**the power save mode is based on a battery level of the mobile device**” to have its **plain meaning**.

VI. DISPUTED TERMS IN U.S. PATENT NO. 9,603,056

The ’056 Patent, titled “Mobile Application Traffic Optimization,” issued on March 21, 2017, and bears an earliest priority date of July 26, 2010. The Abstract of the ’056 Patent states:

A system with a distributed proxy is provided. Additionally, a mobile device with power management and optimization is provided. The mobile device may alter characteristics or behavior in order to conserve battery power and reduce signaling.

F. “backlight”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“an illumination device that provides light behind a viewing surface”	“an illumination device that provides light behind a non-emissive display”

(Dkt. No. 82, Ex. B, at 24; Dkt. No. 97, at 10; Dkt. No. 100, at 10; Dkt. No. 104-1, at 15.) The parties submit that this term appears in Claims 1, 10, and 19 of the ’056 Patent. (*Id.*, at 15, 17, 18, 20 & 21.)

Plaintiff submits that “the parties respectfully request that the Court deem incorporated by reference herein the arguments and evidence previously presented regarding ‘backlight,’” which *Google* construed as to the ’127 Patent. (Dkt. No. 97, at 10; *see Google*, slip op. at 10–14; *see also* Dkt. No. 82, Ex. B, at 24 n.3.)

Defendant likewise responds that “[t]he parties desire to reduce burden on the Court and the parties, such that the Court may re-enter its prior ruling on this term without additional

argument here, while allowing the parties to preserve their positions for appeal.” (Dkt. No. 100, at 10.) At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

The Court therefore finds that the parties here have incorporated-by-reference the arguments set forth by the parties in *Google*, the Court adopts the *Google* construction for the same reasons set forth by the Court in *Google* (*see Google* at 10–14), and the Court accordingly hereby construes “**backlight**” to mean “**an illumination device that provides light behind a viewing surface.**”

VII. DISPUTED TERMS IN U.S. PATENT NO. 10,091,734

The ’734 Patent, titled “Optimizing Mobile Network Traffic Coordination Across Multiple Applications Running on a Mobile Device,” issued on October 2, 2018, and bears an earliest priority date of July 26, 2010. The Abstract of the ’734 Patent states:

Systems and methods for prediction of activity session for mobile network use optimization and user experience enhancement are disclosed. In one aspect, embodiments of the present disclosure include a method, which may be implemented on a system for enhancing user experience with a mobile application on a mobile device including, using user activity characteristics at a mobile device and server activity characteristics of a host server to anticipate a future activity session at the mobile device and transferring impending content from the host server the mobile device to pre-cache content on the mobile device to support predicted data activity for the future activity session that has been predicted.

G. “block,” “blocking,” and “blocked”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“prevent/preventing/prevented”	Plain and ordinary meaning

(Dkt. No. 82, Ex. B, at 49; Dkt. No. 97, at 11.) The parties submit that this term appears in Claims 1 and 9 of the ’734 Patent. (Dkt. No. 82, Ex. B, at 49.)

Plaintiff submits that “[i]n an effort to narrow disputes, SEVEN is no longer seeking construction of ‘block.’” (Dkt. No. 102, at 4.) At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

Because Plaintiff no longer seeks construction of these terms, the Court hereby construes “**block**,” “**blocking**,” and “**blocked**” to have their **plain meaning**.

VIII. DISPUTED TERMS IN U.S. PATENT NO. 9,438,550

The ’550 Patent, titled “Mobile Device Power Management in Data Synchronization Over a Mobile Network With or Without a Trigger Notification,” issued on September 6, 2016, and bears an earliest priority date of January 8, 2002. The Abstract of the ’550 Patent states:

A method for transferring data between a mobile device and a client includes sending transactions from the mobile device to the client over a first connection and determining how often to receive new data.

H. “a predetermined amount”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“a preset threshold”	“a preset threshold for selecting a power management mode and exiting the power management mode” ⁷

(Dkt. No. 82, Ex. B, at 8; Dkt. No. 97, at 11; Dkt. No. 100, at 3; Dkt. No. 104-1, at 29, 32 & 36.)

The parties submit that this term appears in Claims 1, 15, and 32 of the ’550 Patent. (*Id.*)

(1) The Parties’ Positions

Plaintiff argues that Defendant’s proposal contradicts the claims and attempts to import language from some of the claims into all of the claims. (Dkt. No. 97, at 11–13.)

Defendant responds:

⁷ Defendant previously proposed: “a preset threshold for entering and exiting low power mode.” (Dkt. No. 82, Ex. B, at 8.)

SEVEN’s incorrect argument hinges on the fact that claims 1 and 15 separately use the phrase “*a predetermined amount*” in the “select” limitation and again in the “exit” limitation. But these two references to “*a predetermined amount*” must refer to the same “*predetermined amount*.”

(Dkt. No. 100, at 3.) Defendant argues that certain dependent claims can be understood only if there is a single “*predetermined amount*.” (*Id.*, at 3–4.) Defendant also submits that “[t]he patent never describes a device using a threshold (e.g., below 20%) to cause the device to begin using a particular synchronization rate and then continue to use that rate after the device has exceeded that same threshold.” (*Id.*, at 4.)

Plaintiff replies that “Apple’s revised construction improperly loads up this simple, 3-word term with extraneous language when other claim language provides what is done with ‘*a predetermined amount*.’” (Dkt. No. 102, at 4.) Plaintiff argues that “‘*a predetermined amount*’ may be different in the ‘select’ and ‘exit’ elements.” (*Id.*)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

Claim 32 of the ’550 Patent recites “*select[ing]* a low power mode . . . when the remaining battery level is below the *predetermined amount*” and “*exit[ing]* the low power management mode when the remaining battery level is above *the predetermined amount*.” The parties appear to agree, as to Claim 32, that a *predetermined amount* is a preset threshold for selecting a power management mode and for exiting the power management mode.

Claim 1, for example, by contrast, recites (emphasis added)

1. A method for transferring data between a mobile device and a host, comprising:
sending, in response to instructions from a processor, application data requests from a mobile device to a host over a first connection at a first frequency;
receiving data from the host responsive to the sent application data requests;
selecting a power management mode, from a plurality of power management modes, based on an amount of battery power remaining on the mobile

device, wherein selecting a power management mode is further based on the amount of battery power remaining being below a predetermined amount;

changing the frequency that the application data requests are sent from the first frequency to a second frequency associated with the selected power management mode;

wherein at least two of the power management modes are a low power mode configured to conserve the amount of battery power remaining on the mobile device and a normal operation mode,

wherein the normal operation mode is configured to allow the mobile device to send application data requests more frequently than when the mobile device is in low power mode,

wherein the frequency at which some application data requests are sent is not changed to the second frequency while the mobile device is in the low power mode; and

exiting the low power mode when an amount of battery power remaining is above a predetermined amount.

Claim 1 refers to exiting the low power mode with reference to “*a* predetermined amount,” not “*the* predetermined amount.” Claim 15 is the same in this regard. On one hand, a common patent law convention when reciting multiple instances of a particular limitation is to recite “first” and “second.” *See 3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (“use of the terms ‘first’ and ‘second’ is common patent-law convention to distinguish between repeated instances of an element”) (citations omitted). The absence of “first” and “second” as to “*a* predetermined amount” perhaps favors Defendant’s interpretation. On the other hand, whereas “*the*” is normally used in patent claims to refer back to an antecedent, “*a*” normally means simply “one or more.”

On balance, the recitals of “*a* predetermined amount” in Claims 1 and 15 are not limited to using the same predetermined amount. This understanding is also consistent with the specification, which discloses that there may be multiple thresholds:

Different charge gradient levels can be used for varying how often the mobile device 21 synchronizes with the personal client 40. For example, the mobile device 21 may synchronize every 5 minutes when the battery 123 has 75% or more charge remaining and may synchronize every 10 minutes when the battery 123 is between 75% and 50% charged. When the battery 123 is between 50% and 25% charged,

the mobile device 21 may only synchronize with personal client 40 every 30 minutes. Other charge/synchronization rates can also be used.

'550 Patent at 9:10–20. Plaintiff also notes that a provisional patent application, incorporated by reference in the '550 Patent, refers not only to a “low” power mode but also to a “medium” power mode. (*See* Dkt. No. 97, Ex. BB, United States Provisional Patent Application No. 60/403,249, at 20; *see also* '550 Patent at 1:20–22 (incorporating by reference).) Although Defendant argues that the specification does not disclose using different thresholds for selecting and exiting, the claim language is sufficiently clear on its face and does not exclude using different thresholds, and Defendant identifies nothing in the specification that teaches against using different thresholds.

Defendant notes that Claims 3 and 19, which depend from Claims 1 and 15, respectively, recite “wherein the predetermined amount is 75% of battery charge.” To whatever extent this recital of “the predetermined amount” is ambiguous as to antecedent basis, this potential lack of clarity may perhaps bear upon definiteness as to Claims 3 and 19 but does not inject any lack of clarity into the independent claims, Claims 1 and 15.⁸

The Court therefore hereby construes this disputed term as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“a predetermined amount” (’550 Patent, Claims 1, 15)	“a preset threshold”
“a predetermined amount” (’550 Patent, Claim 32)	“a preset threshold for selecting a low power management mode and for exiting the low power management mode”

⁸ The deposition testimony of Plaintiff’s expert, Dr. Mark Jones, cited by Defendant, does not compel otherwise. (*See* Dkt. No. 100, Ex. 4, Jan. 9, 2020 Jones dep. at 20:8–21:16 (“Q. [S]itting here today, you don’t have an opinion one way or the other whether the predetermined amount in claim 3 refers to a predetermined amount in the selecting of power management mode clause or in the exiting the low power mode clause, or both. Is that correct? A. That’s correct.”).)

I. “application data request”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning, which is a “request for application data”	Plain and ordinary meaning, which is “a request for data initiated by an application”

(Dkt. No. 82, Ex. B, at 5; Dkt. No. 97, at 13; Dkt. No. 100, at 1; Dkt. No. 104-1, at 29, 32 & 36.)

The parties submit that this term appears in Claims 1, 15, and 32 of the ’550 Patent. (*Id.*)

(1) The Parties’ Positions

Plaintiff argues that “[t]he claims . . . recite a processor configured to allow the mobile device (not an ‘application’) to send application data requests and change the frequency of those requests.” (Dkt. No. 97, at 14.) Plaintiff submits that the patent teaches “[a]pplication data requests are not limited to requests ‘initiated by an application’ but rather may be sent by the mobile device based on, for example, whether it is a weekend or the battery level.” (*Id.*)

Defendant responds that “SEVEN disputes that the request is initiated by an application, but SEVEN’s construction would give no effect to the key claim amendment SEVEN made to obtain allowance and thus cannot be correct.” (Dkt. No. 100, at 2.) Defendant further argues:

SEVEN’s enumerated arguments, all of which rely on specification passages describing the mobile device sending requests, not an application sending data requests, miss the mark. Apple’s construction does not require an application *send* the application data request, nor does Apple’s construction contradict passages referring to the mobile device sending application data requests. Rather, Apple’s construction confirms that an application request is from (i.e., *initiated by*) an application—regardless of what sends the request.

(*Id.*, at 2–3.)

Plaintiff replies that the amendment cited by Defendant “merely narrowed the claims from a ‘transaction,’ which broadly may be a message, including one that does not necessarily request any data (let alone application data), to ‘application data requests’ that request application data.”

(Dkt. No. 102, at 5.) Plaintiff argues that “[a] ‘transaction’ may be a username/password in which an acknowledgement is returned, regardless of whether the username/password requests data.”

(*Id.*)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Claim 15 of the '550 Patent, for example, recites:

15. A mobile device located in a mobile network, comprising:
 - a battery;
 - a processor configured to allow the mobile device to:
 - send *application data requests* to a host over a first connection at a first frequency;
 - receive data from the network responsive to the sent *application data requests*;
 - select a power management mode from a plurality of power management modes based on an amount of battery power remaining on the mobile device, wherein the selection of a power management mode is further based on the amount of battery power remaining being below a predetermined amount;
 - change the frequency that *application data requests* are sent from the first frequency to a second frequency associated with the selected power management mode;
 - wherein at least two of the power management modes are a low power mode configured to conserve the amount of battery power remaining on the mobile device and a normal operation mode,
 - wherein the normal operation mode is configured to allow the mobile device to send *application data requests* more frequently than when the mobile device is in the low power mode,
 - wherein the frequency at which some *application data requests* are sent is not changed to the second frequency while the mobile device is in the low power mode; and
 - exit the low power mode when an amount of battery power remaining is above a predetermined amount.

Plaintiff argues that the requests need merely be for application data. Defendant argues that the requests must be initiated by an application. Viewed another way, the dispute is whether the word “application” modifies “data” or modifies “data *requests*.”

During prosecution of the ’550 Patent, the patentee authorized the examiner to replace “transaction” with “application data request.” (*See* Dkt. No. 100, Ex. 2, June 14, 2016 Notice of Allowability, at 2–12; *see also id.*, Ex. 3, June 6, 2016 Interview Summary.) Plaintiff argues that this amendment does not require the request to be initiated by an application because the amendment merely required a particular type of “transaction,” namely a “request.” Defendant responds that surrounding claim language, which before the amendment already recited receiving responsive data, already required the “transaction” to be a request. (Dkt. No. 100, at 2.) Upon review, this prosecution history contains no explanation by the patentee regarding the difference in meaning between “transaction” and “application data request,” and no disclaimer is apparent. *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on *definitive* statements made during prosecution.”) (emphasis added). Also, Plaintiff fails to support its assertion in its reply brief that “[a] ‘transaction’ may be a username/password in which an acknowledgement is returned, regardless of whether the username/password requests data.” (Dkt. No. 102, at 5.)

Turning to the specification, on one hand Plaintiff argues that “the patent teaches that the mobile device initiates a synchronization request (‘application data request’) for obtaining data not be [*sic*] tied to any particular application” (Dkt. No. 97, at 15), but the disclosures cited by Plaintiff refer to data such as e-mail, “calendars, contacts, tasks, notes, electronic documents, files, or any other type of data that needs to be transferred between a local network and a mobile device.” ’550

Patent at 2:29–34. Plaintiff does not demonstrate that any of the disclosed examples are non-application data or are not initiated by applications.

On the other hand, Plaintiff notes disclosure that refers to a mobile device initiating synchronization:

The mobile device 21 can periodically initiate synchronization according to an amount of charge remaining in a battery 123. For example, when battery 123 has a relatively large amount of charge remaining, the mobile device 21 may synchronize more frequently than when the battery 123 has a relatively small amount of charge remaining[.]

'550 Patent at 9:2–7 (emphasis added); *see also id.* at 7:53–59. Also, Claim 1 of the '550 Patent recites a method that includes “sending, in response to instructions from a processor, application data requests from a mobile device to a host over a first connection at a first frequency.” This recital is consistent with Plaintiff’s interpretation that the mobile device as a whole, rather than individual applications, can control the sending of application data requests.

Additional disclosures are consistent with finding that an “application data request” is simply a request for application data, not necessarily “initiated by” an application:

If the contact the user is looking for is not within the first contacts list portion 108, the user can send a second View Contacts transaction 110 to the personal client 40.

* * *

The trigger 132 causes the mobile device 21 to establish the mobile connection 23 with the management server 28 and then send a synchronization request transaction 134 to the personal client 40.

'550 Patent at 7:27–29 & 8:6–9; *see id.* at 3:38–62 & 7:53–64.

The Court therefore hereby construes “**application data request**” to mean “**request for application data**.”

IX. DISPUTED TERMS IN U.S. PATENT NO. 10,027,619

The '619 Patent, titled "Messaging Centre for Forwarding E-Mail," issued on July 17, 2018, and bears an earliest priority date of February 9, 2005. The Abstract of the '619 Patent states:

A method for forwarding an e-mail message from an e-mail server to a mobile terminal is provided. An e-mail address of the mobile terminal is associated with an identifier and encryption information, receiving the e-mail message associated with the e-mail address and sent by the e-mail server. The method includes encrypting the e-mail message using the encryption information associated with the e-mail address and transmitting the encrypted e-mail message to the mobile terminal.

J. "service activation code"

Plaintiff's Proposed Construction	Defendant's Proposed Construction
"code relaying information used to register a remote device for access to a messaging account"	"code relaying information used to authenticate a user's access to a messaging account"

(Dkt. No. 82, Ex. B, at 38; Dkt. No. 97, at 16; Dkt. No. 100, at 24; Dkt. No. 104-1, at 39.) The parties submit that this term appears in Claims 22, 37, and 51 of the '619 Patent. (*Id.*, at 39, 41 & 42.)

(1) The Parties' Positions

Plaintiff argues that Defendant's proposal should be rejected because "authentication is a separate and independent process," and "Apple attempts to import a limitation that is not even included in—and therefore would exclude—the preferred embodiment." (Dkt. No. 97, at 16 & 17.)

Defendant responds that "[d]uring prosecution, SEVEN specially defined the claimed service activation code to distinguish the prior art, telling the patent office a service activation code 'must relay information to the host system such as a user name and password combination.'" (Dkt.

No. 100, at 24 (citation omitted).) Defendant also argues that its proposed construction is consistent with the specification. (*Id.*, at 25.)

Plaintiff replies that “nowhere in the file history did SEVEN or the PTO say that user name and password are required. Instead, per the ‘such as’ language, they are merely exemplary.” (Dkt. No. 102, at 6.) Further, Plaintiff argues:

Apple also improperly seeks to import an additional, ambiguous limitation that the code must “authenticate a user’s access,” which is never suggested by the file history and whose meaning Apple does not provide. As Apple concedes, the specification and claims confirm that authentication is a separate and independent process.

(*Id.*)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

Claim 37 of the ’619 Patent, for example, recites (emphasis added):

37. A method for sharing a messaging account, the method comprising:
authenticating a device for access to the messaging account;
optically receiving information including a displayed *service activation code* from a remote device;
registering the remote device for access to the messaging account using the *service activation code*;
receiving a message for the messaging account;
encrypting the message using an encryption key; and
sending the message to the remote device.

Because Claim 37 separately recites a step of “authenticating a device for access to the messaging account,” Defendant’s proposed construction appears to be redundant. The other claims here at issue are similar in this regard. *See* ’619 Patent, Cl 22 (“wherein the device is authenticated to access the messaging account”); *see also id.*, Cl. 51 (same). The separate recital of “authenticating” suggests that if the patentee had intended the term “service activation code” to refer to authenticating, the patentee would have said so. *See Phillips*, 415 F.3d at 1314 (“the

context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms") (citation and internal quotation marks omitted).

The specification is consistent with this interpretation, disclosing an “authentication” step that is separate from entering a service activation code:

FIG. 2 shows a secure e-mail provisioning technique in which the host system 100 authenticates the user of the mobile terminal 102. In step 2-1 the client software in the mobile terminal 102 generates and displays a service activation code. In step 2-2 *the host system 100 authenticates the person who enters the service activation code*. Instead of a dedicated authentication step, the technique may rely on the authentication of the underlying e-mail system, such as user name and password combination. After all, the e-mail provisioning need not be more secure than the underlying e-mail system. In step 2-3 *the service activation code is then conveyed off-line to the host system 100*. The idea of the off-line communication is to eliminate any chance of eavesdropping before secure a [sic, a secure] communication channel can be established. For instance, the service activation code may be entered manually or via a local connection, such as a wired or optical interface or a short-range wireless interface, such as Bluetooth™. Finally, in step 2-4, the mobile terminal’s service activation code is registered with the connectivity function in the messaging centre 110.

’619 Patent at 4:56–5:8; *see id.* at Fig. 2. Also of note, this disclosure refers to a “user name and password combination” merely as an example.

Defendant cites prosecution history in which the patentee stated that “to register to a messaging account, the service activation code must relay information to the host system such as a user name and password combination.” (Dkt. No. 100, Ex. 14, Aug. 1, 2017 Response to Final Office Action, at 12 (emphasis omitted).) In doing so, the patentee discussed the “Anttila” reference (United States Patent Application Publication No. 2005/0139680), which the patentee stated discloses “generating and displaying a visual code that encodes an *address* of the first digital device and a predetermined data element location identifier.” (*Id.* (emphasis modified).) The patentee presented similar arguments in other prosecution history cited by Defendant. (*See id.*, Ex. 16, Arguments Presented for Pre-Appeal Brief Request for Review, at 6.)

The patentee also argued, however, that Anttila related to establishing short-range communications between devices rather than registering a remote device for access to a messaging service. (*See* Dkt. No. 100, Ex. 14, Aug. 1, 2017 Response to Final Office Action, at 12.) On balance, no relevant definition or disclaimer is apparent.⁹

This interpretation of the prosecution history is consistent with the above-reproduced claim language, which recites “registering the remote device for access to the messaging account” and which does not refer to the particular content of a service activation code. The specification, likewise, as reproduced above, discloses simply that the service activation code is used for registering a device.

The Court therefore hereby construes “**service activation code**” to mean “**code relaying information used to register a remote device for access to a messaging account.**”

X. DISPUTED TERMS IN U.S. PATENT NO. 9,473,914

The ’914 Patent, titled “System and Method for Providing a Network Service in a Distributed Fashion to a Mobile Device,” issued on October 18, 2016, and bears an earliest priority date of January 11, 2008. The Abstract of the ’914 Patent states:

A system for providing mobile network services is disclosed. A first server is communicatively coupled to a mobile device over a mobile network and configured to receive a unique authentication token from the mobile device over the mobile network and provide a service to the mobile device via the mobile network, the service associated with the unique authentication token and branded by an entity other than an operator of the mobile network. A second server is communicatively coupled to the mobile network and configured to monitor usage of the mobile network by the mobile device. A computing device is communicatively coupled to the mobile device over the mobile network and configured to receive the unique authentication token from the mobile device over the mobile network, access digital

⁹ Even if a disclaimer were deemed to be present, the disclaimer would be only that, in distinguishing Anttila, the patentee asserted that a service activation code must include not merely an address but rather must include additional information that can be used to register the remote device for access to a messaging account. (*See id.*)

content over a network, and transfer a representation of the digital content to the mobile device over the mobile network.

K. “automatically transmitting” and “automatically transmitted”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning To the extent the Court deems construction necessary: “sending content automatically (e.g., according to a user preference setting) as opposed to in response to a user selection of the content available from the content provider”	“sending content without a user indicating a desire to receive the download”

(Dkt. No. 82, Ex. B, at 10; Dkt. No. 97, at 17; Dkt. No. 100, at 4; Dkt. No. 104, at 44–45.) The parties submit that this term appears in Claims 1, 11, and 21 of the ’914 Patent. (*Id.*, at 44, 46 & 47.)

(1) The Parties’ Positions

Plaintiff argues that “there is no disclaimer or lexicography in the file history that would justify limiting the term to Apple’s vague construction.” (Dkt. No. 97, at 18.) Plaintiff discusses Claim 1 and argues that “a POSITA would understand the claim juxtaposes ‘automatically transmitting’ with ‘in response to a user selection of the content available from the content provider’ as set forth in SEVEN’s proposed construction.” (*Id.*, at 19.) Further, Plaintiff argues that “Apple’s construction is not based on the description in the claims or specification, but instead quotes language from a prior art reference that is divorced from the context of the claims.” (*Id.*)

Defendant responds that whereas “Apple’s proposed construction captures the meaning of the term SEVEN adopted in the file history,” “SEVEN’s construction attempts to recapture the very same scope it gave up.” (Dkt. No. 100, at 5.)

Plaintiff replies that “the specification explains that content may be transferred ‘automatically according to a user preference setting,’” and “there is no clear and unmistakable disclaimer that justifies excluding this preferred embodiment.” (Dkt. No. 102, at 6 (citing ’914 Patent at 12:48–49).)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

Claim 1 of the ’914 Patent, for example, recites (emphasis added):

1. A method comprising:

receiving a unique authentication token from each of a first device and a second device;

transferring to a content selection interface on the first device an indication of content available from a content provider;

transmitting selected content to the first device in response to a user selection of the content available from the content provider at the first device;

automatically transmitting the selected content to the second device,

wherein the selected content is transmitted to the first device through a first connection and transmitted to the second device through a second connection distinct from the first connection.

The claim thus contrasts “automatically transmitting the selected content” with “transmitting selected content . . . in response to a user selection of the content.” This context provided by surrounding claim language thus demonstrates that “automatically transmitting” is not in response to (or, at least, is not merely in response to) a user selection of the content.

Further, the specification refers to a transfer occurring automatically according to a “user preference setting”:

The content transfer application 134 is configured to transfer a representation of the downloaded content to the mobile device 120. The content transfer application 134 may transfer the representation of the downloaded content in response to a command received from the content provider 110, the mobile virtual network operator 140, the mobile device 120, a user of the personal computing device 130, and/or the content management software 136. Alternatively, the content transfer application 134 may transfer the representation of the downloaded content *automatically according to a user preference setting*.

'914 Patent at 12:39–49 (emphasis added).

During prosecution, the patent examiner rejected claims based on the “Hayashi” reference (United States Patent Application Publication No. 2006/0095339). (Dkt. No. 100, Ex. 5, Apr. 1, 2016 Office Action, at 6–7.) The patentee responded:

Hayashi does not teach automatically downloading the content to the second device. (“As such, the invention offers a convenient way for the user at the first client device 104 to indicate (e.g., bookmark) an interest in at least one digital media item available on the online media store server 102, yet defers the downloading of the data for the selected digital media item until the user (or an affiliated user) couples to the online media store server 102 via the second client device 106 and indicates a desire to receive the download.”)

(*Id.*, Ex. 6, Apr. 16, 2016 Response to Office Action, at 10.) Although the patentee distinguished Hayashi, the patentee did not thereby define “automatically transmitting” as being without a user indicating a desire to receive the content. *See Omega Eng’g*, 334 F.3d at 1324 (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on *definitive* statements made during prosecution.”) (emphasis added). Instead, the above-reproduced disclosure in the specification demonstrates that automatic transmission can encompass preference settings set by a user. *See* '914 Patent at 12:39–49; *see also id.* at 7:4–15.

The Court therefore hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“automatically transmitting”	“sending content automatically as opposed to in response to a user selection of the content”

“automatically transmitted”	“send content automatically as opposed to in response to a user selection of the content”
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XI. DISPUTED TERMS IN U.S. PATENTS NO. 10,135,771 AND 9,712,476

The ’771 Patent, titled “Secure End-to-End Transport Through Intermediary Nodes,” issued on November 20, 2018, and bears an earliest priority date of January 8, 2002. The ’476 Patent, titled “Secure End-to-End Transport,” issued on July 18, 2017, and bears an earliest priority date of January 8, 2002. The Abstracts of the ’476 Patent and the ’771 Patent (sometimes referred to herein as “the ’476/’771 Patents”) are the same and state:

A communication network encrypts a first portion of a transaction associated with point-to-point communications using a point-to-point encryption key. A second portion of the transaction associated with end-to-end communications is encrypted using an end-to-end encryption key.

L. “security association”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“information enabling encrypted or clear communication between two end points”	“a cryptographic ciphersuite including an encryption cipher, key length, and digital signature algorithm and a unique encryption key enabling secure communication between two end points”

(Dkt. No. 82, Ex. B, at 30; *see* Dkt. No. 97, at 19; Dkt. No. 104-1, at 53 & 54.) The parties submit that this term appears in Claims 1, 13, 23, and 33 of the ’476 Patent and Claim 27 of the ’771 Patent. (*Id.*, at 53–55, 57 & 59–60.)

(1) The Parties’ Positions

Plaintiff argues that “[t]he specification describes three security associations—clear, point-to-point, and end-to-end,” and “[c]lear’ is not encrypted.” (Dkt. No. 97, at 20.) Plaintiff submits that “[o]nly SEVEN’s construction covers both the clear and encrypted security association

embodiments.” (*Id.*) Further, Plaintiff argues that “[w]hen [the specification] demonstrates the use of a predefined security association, the specification merely discusses whether or not to encrypt data and does not show, for example, use of a digital signature algorithm, a key length, a unique encryption key, etc.” (*Id.*, at 20–21.)

Defendant responds that the specification “consistently, repeatedly, and exclusively explains that a ‘security association’ specifies a cryptographic ciphersuite (including encryption cipher, key length, and digital signature algorithm) and a unique encryption key.” (Dkt. No. 100, at 16.) Defendant argues that “[t]he meaning of the claim term ‘security’ makes it illogical that a ‘*security association*’ would enable *clear* communications, as SEVEN proposes,” and “[t]he patents contain no disclosure of a security association (predefined or negotiated) used to enable clear communications.” (*Id.*, at 17 & 18.)

Plaintiff replies that “[d]igital signature algorithm” and ‘key length’ only appear in two sentences in the specification, both expressly in a *negotiated* SA embodiment.” (Dkt. No. 102, at 7 (citing ’771 Patent at 3:8–16 & 7:28–34).) Further, Plaintiff reiterates that “Apple’s construction also reads out the ‘clear’ embodiment” (Dkt. No. 102, at 7 (citing ’771 Patent at 7:40–42).)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

The specification lists “clear” as a possible security association:

In order to prepare the request 90 for transmission, the mobile device 21 in block 104 of FIG. 6 performs a pattern match of the request 90 using the encryption schema 94. This pattern match separates the items in request 90 into different channels. One example of the different channels is shown below. In this example, the items in each channel are associated with predefined *security associations*: *clear*, *pp*, and *ee*.

* * *

The bit arrays are then encrypted in block 108 according, to, the *security association* parameters for each channel. *According to the encryption schema 94, bits in the clear channel (data_group_1) are not encrypted.* The bits in the pp channel data_group_2 are encrypted using the *point-to-point security association* between mobile device 21 and management server 28, using PP key 27, and are referred to after encryption as pp_data_group_2. The bits in the ee channel data_group_3 are encrypted using the *end-to-end security association* between mobile device 21 and personal client 40, using EE key 46, and are referred to after encryption as ee_data_group_3.

* * *

In block 126 the transfer agent performs another pattern match of the new request with the encryption schema 94 to reform the *channel contents associated with the different security associations.* In this example, the items in the *clear, pp, and ee channels* are fairly similar to the items originally sent by the mobile device 21.

'476 Patent at 7:28–35, 7:62–8:7 & 9:39–45 (emphasis added); *see id.* at 5:59–67, 6:35–37, 7:10–27 (“the context of the communication determines the specific security association selected for encryption of a channel”), 8:51–62 (“Decryption produces the following data groups: clear ‘=data_group_1, pp=data_group_2, and ee=ee_data_group_3.’”), 9:41–42, 9:59–63, 10:23–24 & 10:60–66. The specification also discloses an embodiment in which “the encryption schema 28 defines no encryption for the clear channel.” *Id.* at 9:57–58.

Subsequent disclosures regarding a “point-to-point security association,” an “end-to-end security association,” and a “clear *channel*” perhaps could be read as implying that a clear channel is not a security association. *See id.* at 7:62–8:7. The specification discloses that “bits in the clear channel . . . are *not encrypted.*” *Id.* (emphasis added).

On balance, based on the above-discussed context in which the term “security association” appears in the claims and in the specification, the '771 Patent and the '476 Patent use “security association” to refer to information regarding whether a communication is encrypted and, if so, what type of encryption is used.

As to Defendant's proposal of requiring a "ciphersuite," the specification discloses:

The personal client 40 makes an outbound connection 25 to the management server 28. The personal client 40 registers the presence of a particular user to the management server 28 and negotiates a *security association* specifying a cryptographic *ciphersuite* (*including encryption cipher, key length, and digital signature algorithm*) and a unique, secret point-to-point encryption key 29 over connection 25. * * *

The mobile device 21 negotiates a point-to-point *security association*, specifying a cryptographic *ciphersuite* and a unique encryption key 27, with the management server 28.

* * *

An end-to-end *security association*, specifying a cryptographic *ciphersuite* and a unique encryption key 46, is negotiated between the mobile device 21 and the personal client 40.

'476 Patent at 2:64–3:3, 3:10–12 & 3:29–32 (emphasis added).

These details regarding a "ciphersuite," however, are specific features of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323; *see also* '476 Patent at 2:23–27 (referring to Figure 1 as "show[ing] one embodiment").¹⁰ The contrary opinions of Defendant's expert, Dr. Henry Houh, are likewise unpersuasive. (*See* Dkt. No. 99, Ex. FF, Dec. 20, 2019 Houh Decl., at ¶ 82.)

The Court therefore hereby construes "**security association**" to mean "**information regarding whether encryption is used for communication and, if so, what type of encryption is used.**"

¹⁰ Plaintiff also cites United States Patent No. 7,352,868 ("Hawkes"), which the '476 Patent and the '771 Patent list as a cited reference, but the disclosure in Hawkes regarding "IPSec" does not significantly affect the Court's analysis of the term "security association" in the '476 Patent and the '771 Patent. (*See* Dkt. No. 97, Ex. DD, Hawkes at 10:58–63 ("IPSec utilizes 'security associations' to describe the parameters, such as the encryption key and encryption algorithm, used to encrypt and/or authenticate communications between a group of entities. Note that the concept of a security association is also valid when applied to cryptosystems not based on IPSec.").)

M. “token”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“created identifier comprising a unique string of data”	“data representing user validation”

(Dkt. No. 82, Ex. B, at 28 & 55; Dkt. No. 97, at 22; Dkt. No. 104, at 49 & 54.) The parties submit that this term appears in Claims 1, 13, 23, 33, and 43 of the ’476 Patent and Claims 1, 7, 11, 14, 26, and 28–30 of the ’771 Patent. (*Id.*, at 49–60.)

(1) The Parties’ Positions

Plaintiff argues that “[t]he patent . . . teaches that the token may be a unique identifier providing transaction routing information, such as identifying a particular connection over which to route the data” (Dkt. No. 97, at 22.) Plaintiff also argues that “the specification . . . discloses a token may identify ‘sync state,’ which is a created, unique identifier of the final sync state of the mobile device after synchronizing data with a server,” and “[t]his token has nothing to do with ‘user validation.’” (*Id.*, at 23.) Further, Plaintiff argues, “Apple’s construction contradicts the prosecution history.” (*Id.*)

Defendant responds that because “the patents’ common specification does not use token consistent with its generally accepted meanings (evidenced by dictionary definitions),” “‘token’ ‘cannot be construed broader than the disclosure in the specification.’” (Dkt. No. 100, at 13 (quoting *Indacon, Inc. v. Facebook, Inc.*, 824 F.3d 1352, 1357 (Fed. Cir. 2016))). Defendant also argues that Plaintiff’s proposal is overbroad because “[t]he specification includes many ‘created identifier[s] comprising a unique string of data’ that the inventors do not refer to as tokens and that are not tokens, at least because they do not provide routing information.” (*Id.* at 16.)

Plaintiff replies that “Apple has no explanation for how the disclosure of ‘sync tokens,’ which has nothing to do with user validation and is incorporated into the specification, comports

with its construction requiring ‘user validation.’” (Dkt. No. 102, at 8 (citations omitted).) Plaintiff urges that “[o]ther claim language describing how a ‘token’ is used does not provide a basis to narrowly construe ‘token’ to exclude disclosed embodiments.” (Dkt. No. 102, at 8.) Finally, Plaintiff argues that “Apple’s construction is broad and includes many things that are not tokens, including a simple ‘password accepted’ message.” (*Id.*, at 9.)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

To the extent Defendant is proposing to include the limitations disclosed in the specification as to the “auth_token,” the “auth_token” is disclosed as part of particular embodiments:

Mobile device 21 attaches an auth_token to transactions sent to the management server 28. For example, the mobile device 21 may be required to authenticate to the management server 28 by transmitting a username and password prior to being permitted to submit other transactions for processing. The server 28 issues the mobile device 21 an auth_token after successfully validating the username and password against information in the user database 42. The mobile device 21 then attaches the auth_token to subsequent transactions sent to the management server 28. The management server 28 uses the auth_token to identify and authenticate the source of each transaction and to determine where to route the transaction.

¹476 Patent at 6:12–24; *see id.* at 6:65–67 (“In this example the auth_token is assigned to the ‘pp’ channel and encrypted using the PP key 27.”); *see also id.* at 9:20–23 (“In this example, the transfer agent may verify the request is authorized by matching the value of auth_token (‘abc’) with contents in the user database 42 (FIG. 5.”)). These specific features of the “auth_token” should not be imported into the construction of “token.” *See Phillips*, 415 F.3d at 1323. Also, Plaintiff points out disclosure that “*the mobile device 21* is operating as a source for sending a transaction 90,” which suggests that a “token” does not necessarily pertain to a *user*. ’476 Patent at 5:42–44

(emphasis added); *see id.* at 5:54–58 (“any device can operate as a source or target for the transaction”).

Claim 1 of the ’476 Patent, for example, recites (emphasis added):

1. A method comprising:

encrypting, at a first computer, first data of a first data path in a transaction using a first security association, wherein the first data path is through an intermediary server that provides connectivity between the first computer and a second computer, and wherein the first security association is not known to the intermediary server;

wherein the transaction comprises a transaction message that includes control data and payload data;

transmitting the control data to the intermediary server, *wherein the control data includes a token associated with the intermediary server and the token provides transaction routing information*;

encrypting second data of a second data path using a second security association, wherein the second data path is distinct from the intermediary server; and

transmitting the payload data through the second data path.

The claim thus provides context for how the “token” is used. Further as to this context, differences between claims are informative as to the breadth of the term “token.” The above-reproduced claim as well as Claim 33 of the ’476 Patent, for example, recite that “the token provides transaction routing information.” Claim 23 of the ’476 Patent, by contrast, recites a token as included in information that “provides authentication of a source of the transaction and transaction routing information.”

The specification of the ’476/’771 Patents discloses an example in which “auth_token = ‘abc’” (’476 Patent at 6:6), and the specification of ’176 Patent discloses:

The identification module of the computing device may identify the client device based on a client identifier. The client identifier may include *a unique string of data (a token)*, which may have been previously assigned to the client device by the identification module.

’176 Patent at 4:20–24 (emphasis added). The ’176 Patent has a different priority date than the ’476/’771 Patents and is not related, so the specification of the ’176 Patent is extrinsic evidence as

to the '476/'771 Patents and is therefore of limited weight. Nonetheless, this disclosure is consistent with how the above-cited claims use “token” as a particular type of identifier.

Plaintiff also cites disclosure in an incorporated-by-reference provisional patent application:

When a front end authentication request comes in, the connection list is searched for a connection that has *credentials matching* those of the authorization request. The returned *authToken* is a direct key to a particular connection. The connection is not in fact reserved at that time – it is acquired on every call (the authToken only identifies which connection the front end request has access to).

* * *

When a sync is completed, one end-point creates a *sync token*, which is an opaque key that *represents the final sync state*.

* * *

At the end of a successful delta sync [(which asked the data source for all changes since the last sync operation)], a new *sync token* is created to *represent the new sync state*.

(Dkt. No. 97, Ex. EE, United States Provisional Patent Application No. 60/346,881, at SEVEN_APPLE-000007998, -9685 (emphasis modified); *see* '476 Patent at 1:24–30 (incorporating by reference); *see also* '771 Patent at 1:32–38 (same); Dkt. No. 100, Ex. 12, at SEVEN_APPLE-00008003–04.)

Although this provisional application, which is intrinsic evidence, refers to representing a connection or a sync state, the disclosure refers to “access” and “a connection that has credentials matching those of the authorization request,” thus framing the disclosure in terms of validation. This is also consistent with other above-cited disclosures in the specification. *See* '476 Patent at 6:12–24; *see id.* at 9:20–23 (“In this example, the transfer agent may verify the request is authorized by matching the value of auth_token ('abc') with contents in the user database 42 (FIG. 5).”).

Plaintiff also cites prosecution history wherein the patent examiner cited the “Noam” reference (United States Patent No. 7,203,657), which discloses “payment tokens” and “access tokens” that can be purchased by users and that “can be drawn down like a debit card.” (*See* Dkt. No. 97, Ex. HH, Noam at 4:55–58, 5:25–31 & 6:15–19; *see also id.* at 9:12–16 (“creating a string of digital signals known as an access token”); *id.*, Ex. GG, Apr. 4, 2018 Office Action, at 7.) Although this additional intrinsic evidence suggests that the term “token” may have a broader meaning than proposed here by Defendant,¹¹ patent examination applies a broader claim interpretation standard than applied here under *Phillips*.

Further, Plaintiff’s proposal that a “token” is a “created identifier comprising a unique string of data” is overbroad. Such a construction would encompass practically any identifier. For example, as Defendant submits, the specification discloses a “device_id” that “identifies the particular mobile device 21 sending the request 90” (’476 Patent at 6:7 & 6:25–26), and the specification also refers to “a username and password” (*id.* at 6:14–19). Plaintiff does not show that such identifiers are “tokens.”

Defendant fails to demonstrate, however, that a “token” must relate to “user” validation rather than some other validation. The opinions of Defendant’s expert, Dr. Henry Houh, are likewise unpersuasive in this regard. (*See* Dkt. No. 97, Ex. FF, Dec. 20, 2019 Houh Decl., at ¶¶ 58–77.)

The Court therefore hereby construes “**token**” to mean **“an identifier that includes validation data.”**

¹¹ *See Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005) (“Statements about a claim term made by an Examiner during prosecution of an application may be evidence of how one of skill in the art understood the term at the time the application was filed.”).

N. “receiving a token issued by an intermediary server”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“receiving a token created by an intermediary server”	“receiving a token sent from an intermediary server”

(Dkt. No. 82, Ex. B, at 57; Dkt. No. 97, at 25; Dkt. No. 100, at 19; Dkt. No. 104-1, at 49.) The parties submit that this term appears in Claims 1, 14, and 26 of the ’771 Patent.

(1) The Parties’ Positions

Plaintiff argues that “[i]f the Applicant merely wanted to convey ‘sending,’ he would have used the terminology ‘receiving a token *transmitted from* an intermediary server,’ consistent with its terminology everywhere else in the claims.” (Dkt. No. 97, at 25.) Also, Plaintiff argues, “the prosecution history teaches that ‘issued by’ means created, not ‘sent.’” (*Id.*)

Defendant responds that “[t]he patent never describes a server ‘creating’ a token—it only describes a server issuing a particular device token, meaning the server must send the token to that device.” (Dkt. No. 100, at 20.) That is, “Apple agrees that creation precedes sending; Apple disagrees that the claim language addresses creation.” (*Id.*)

Plaintiff replies by reiterating that “[t]he Applicant would have written ‘receiving a token transmitted by an intermediary server’ if ‘issued by’ meant merely sent.” (Dkt. No. 102, at 9.)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

As a threshold matter, Plaintiff cites a case in which this Court construed “issued” (as part of a larger term) to mean “created.” *Stambler v. ING Bank, FSB*, No. 2:10-CV-181-DF-CE, 2011 WL 4527648, at *13 (E.D. Tex. Sept. 28, 2011). This prior construction is of minimal, if any, weight in the present case, however, because “claims of unrelated patents must be construed separately.” *e.Digital*, 772 F.3d at 727.

Plaintiff also notes that Defendant cites a dictionary that defines “issue” as “to originate or proceed from any source.” (Dkt. No. 97, Ex. II, *Webster’s Universal College Dictionary* 435 (1997).) This dictionary, however, includes other definitions of “issue” that include merely “the act of sending out or putting forth” or “to send out; discharge; emit.” (*Id.*) This evidence is thus of minimal, if any, weight as to the present dispute.

Turning to the claim language, Claim 1 of the ’771 Patent, for example, recites (emphasis added):

1. A non-transitory computer-readable storage medium storing instructions to be implemented by a first computer having a processor, wherein the instructions, when executed by the processor, cause the first computer to perform steps comprising:
receiving a token issued by an intermediary server; and
transmitting a transaction message comprising payload data to the intermediary server, wherein the payload data is transmitted to a second computer by the intermediary server based on the token and the intermediary server is coupled to the second computer over a mobile network.

The recital of “issued by” thus contrasts with the recital of merely “transmitting.” The other claims here at issue are similar in this regard. *See* ’771 Patent, Cls. 14 & 26. Although “it is not unknown for different words to be used to express similar concepts,” “the use of both terms in close proximity in the same claim gives rise to an inference that a different meaning should be assigned to each.” *Bancorp Servs., LLC v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004).

Defendant’s counterargument, that “[t]he claims use ‘transmit[ing/ed]’ to focus on *where* data is sent to, not to identify *what* is sending data; ‘issued by’ is used to identify *what* is sending data” (Dkt. No. 100, at 20), is unpersuasive. Likewise, Defendant argues that “[i]f ‘issued by’ means ‘created by,’ then the claim recites a server creating a token, but does not recite from where the mobile device receives the token.” (*Id.*, at 21.) Defendant fails to demonstrate, however, why the claim must necessarily “recite from where the mobile device receives the token.” (*Id.*)

Also, whereas independent Claim 33 of the '476 Patent recites “*transmit* the control data to the intermediary server, wherein the control data includes a token associated with the intermediary server and the token provides transaction routing information,” dependent Claim 43 of the '476 Patent then recites: “The first computer of claim 33, wherein the token is *issued* by the intermediary server.” Here again, the contrast between “*transmit*” and “*issued by*” weighs in favor of Plaintiff’s proposed interpretation.

The “Noam” reference cited by the examiner during prosecution provides additional insight into the meaning of “*issued*,” disclosing that “[a]ccess tokens could include the address of the *issuer* institution that created it.” (Dkt. No. 97, Ex. HH, Noam at 5:30–31 (emphasis added; reference numerals omitted); *see id.*, Ex. GG, Apr. 4, 2018 Office Action, at 7.)

Further, the specification of the '771 Patent discloses:

Mobile device 21 attaches an auth_token to transactions sent to the management server 28. . . . The server 28 *issues* the mobile device 21 an auth_token after successfully validating the username and password against information in the user database 42. The mobile device 21 then *attaches* the auth_token to subsequent transactions *sent* to the management server 28. The management server 28 uses the auth_token to identify and authenticate the source of each transaction and to determine where to route the transaction.

'771 Patent at 6:20–32 (emphasis added). Here, the contrast between issuing and attaching (and sending) is consistent with Plaintiff’s proposal that “*issued*” means generated¹² rather than merely sent or attached. The opinions of Defendant’s expert, Dr. Henry Houh, are likewise unpersuasive. (*See* Dkt. No. 97, Ex. FF, Dec. 20, 2019 Houh Decl., at ¶¶ 86–92.) For example, Dr. Houh opines that the above-cited dictionary demonstrates that “‘issuing’ requires an act of sending out; not mere creation.” (*Id.*, at ¶ 90.) Likewise, at the March 13, 2020 hearing, Defendant urged that if “*issued*”

¹² At the March 13, 2020 hearing, Plaintiff was amenable to the Court’s suggestion of modifying Plaintiff’s proposal by replacing “*created*” with “*generated*.”

means generated, then this above-reproduced disclosure would fail to explain how the mobile device obtained the token. Defendant's argument is unpersuasive because the disputed term as a whole recites "receiving" and thereby, on its face, already requires that the token is conveyed. Defendant fails to show any requirement that the manner of conveyance must be specified.

The Court accordingly hereby construes "**receiving a token issued by an intermediary server**" to mean "**receiving a token generated by an intermediary server.**"

O. The Preamble of Claims 13 and 23 of the '476 Patent

Plaintiff's Proposed Construction	Defendant's Proposed Construction
The preamble is not limiting	<p>Claim 13: The preamble "[a] method implemented on an intermediary server" is limiting.</p> <p>Claim 23: The preamble "[a] server for processing a transaction, the server having a processor configured to" is limiting.</p>

(Dkt. No. 82, Ex. B, at 28; Dkt. No. 97, at 26; *see* Dkt. No. 100, at 11.)

(1) The Parties' Positions

Plaintiff argues that the preambles of Claims 13 and 23 of the '476 Patent do not depart from the general rule that preambles are not limiting. (Dkt. No. 97, at 26.) Plaintiff submits that "[t]here is no reference in the body of the claims to the preambles[,] [n]or was there clear reliance on the preamble in the prosecution history to distinguish the claims." (*Id.*, at 27.) Plaintiff urges that "[p]reamble terms that merely name an invention (e.g., 'a server') or describe an intended use (e.g., 'processing a transaction'), like here, are non-limiting." (*Id.*)

Defendant responds that "[t]he preambles of the '476 patent's claims 13 and 23 are limiting because they provide the sole antecedent bases for essential structural components (servers) recited

in dependent claims.” (Dkt. No. 100, at 11.) Defendant cites the Court’s analysis of similar disputes (as to unrelated patents) in *Whirlpool Corp. v. TST Water, LLC*, No. 2:15-CV-1528-JRG, 2016 WL 3959811, at *7 (E.D. Tex. July 22, 2016), and *Super Interconnect Technologies LLC v. Huawei Device Co.*, No. 2:18-CV-462-JRG, 2020 WL 60145, at *10–*13 (E.D. Tex. Jan. 6, 2020). Defendant also argues that “these preambles recite an essential structural component of the claimed inventions consistent with the specification.” (Dkt. No. 100, at 12.)

Plaintiff replies that “Apple admits that there is no rule that a reference in a dependent claim ‘is always sufficient to render the preamble limiting.’ Even if the preamble term were limiting, it would only be limiting as to the unasserted dependent claim.” (Dkt. No. 102, at 10 (citations omitted).) Plaintiff urges that “[t]hese preambles state the purpose or intended use of the invention—that is, use on a server—and therefore are not limiting.” (*Id.*, at 10–11 (citation omitted).)

At the March 13, 2020 hearing, the parties presented oral arguments as to these terms. Defendant argued that the preambles must be limiting so as to differentiate Claims 13 and 23 from one another.

(2) Analysis

In general, a preamble limits the invention if it recites essential structure or steps, or if it is “necessary to give life, meaning, and vitality” to the claim. *Pitney Bowes[Inc. v. Hewlett-Packard Co.]*, 182 F.3d [1298,] 1305 [(Fed. Cir. 1999)]. Conversely, a preamble is not limiting “where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.” *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997).

Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed. Cir. 2002); *see, e.g., Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) (“When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble

may act as a necessary component of the claimed invention.”); *C.W. Zumbiel Co. v. Kappos*, 702 F.3d 1371, 1385 (Fed. Cir. 2012) (finding preambles limiting because “‘containers’ as recited in the claim body depend on ‘a plurality of containers’ in the preamble as an antecedent basis”).

Also, “the purpose or intended use of the invention . . . is of no significance to claim construction” *See Pitney Bowes*, 182 F.3d at 1305. This principle has sometimes been characterized as “the presumption against reading a statement of purpose in the preamble as a claim limitation.” *Marrin v. Griffin*, 599 F.3d 1290, 1294–95 (Fed. Cir. 2010); *see Allen Eng’g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002) (“Generally, the preamble does not limit the claims.”); *see also Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 769–71 (Fed. Cir. 2018) (in preamble reciting “[a] computer network for providing an information delivery service for a plurality of participants,” finding “information delivery service” to be non-limiting because it “merely describe[s] intended uses for what is otherwise a structurally complete invention”).

In some cases, language in the preamble may be merely “descriptive” of the limitations set forth in the body of the claim. *See IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed. Cir. 2000) (“The phrase ‘control apparatus’ in the preamble merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention.”); *see also Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1358 (Fed. Cir. 2012) (“if the body of the claim describes a structurally complete invention, a preamble is not limiting where it ‘merely gives a name’ to the invention, extols its features or benefits, or describes a use for the invention”) (quoting *Catalina*, 289 F.3d at 809).

Claims 13, 14, 21, 23, 24, and 31 of the ’476 Patent recite (emphasis added):

13. A method *implemented on an intermediary server*, the method comprising:
receiving a username and a password from a first computer;

authenticating the username and the password with a user database;
issuing a token for the first computer after authenticating the username and the password, wherein a first point-to-point security association is negotiated with the first computer and a second point-to-point security association is negotiated with a second computer;
receiving a transaction message from the second computer, the transaction message comprising control data and payload data, wherein the control data includes information that provides authentication of a source of the transaction and transaction routing information, wherein the information includes the token; and
transmitting the payload data to the first computer based on the transaction routing information.

14. The method of claim 13, wherein the first computer is a first mobile device, and the first mobile device and the *intermediary server* are coupled over a mobile network.

* * *

21. The method of claim 20, wherein the device identification provides the transaction routing information for the *intermediary server*.

* * *

23. A *server* for processing a transaction, the *server* having a processor configured to:

receive a username and a password from a first computer;
authenticate the username and the password with a user database;
issue a token for the first computer after authenticating the username and the password, wherein a first point-to-point security association is negotiated with the first computer and a second point-to-point security association is negotiated with a second computer;
receive a transaction message from the second computer, the transaction message comprising control data and payload data, wherein the control data includes information that provides authentication of a source of the transaction and transaction routing information, wherein the information includes the token; and
transmit the payload data to the first computer based on the transaction routing information.

24. The server of claim 23, wherein the first computer is a first mobile device, and the first mobile device and the *server* are coupled over a mobile network.

* * *

31. The server of claim 30, wherein the device identification provides the transaction routing information for the *server*.

Thus, although the preambles of Claims 13 and 23 do not provide antecedent basis for any terms in the bodies of Claims 13 and 23, the preambles of these independent claims provide antecedent basis for the term “intermediary server” in dependent Claims 14 and 21 and the term “server” in dependent Claims 24 and 31.

Plaintiff cites authority that, as a general matter, a preamble of an independent claim need not be found limiting merely because it appears in the body of a dependent claim. *See CreAgri, Inc. v. Pinnaclife Inc.*, No. 11-CV-06635-LHK, 2013 WL 1663611, at *8 (N.D. Cal. Apr. 16, 2013). In some cases, the preamble of the independent claim may be limiting as to a dependent claim but *not* as to the independent claim from which the dependent claim depends. *See TQ Delta, LLC v. 2WIRE, Inc.*, No. 1:13-CV-01835-RGA, 2018 WL 4062617, at *5 (D. Del. Aug. 24, 2018) (Andrews, J.) (“neither party objected to the idea that a preamble could be construed as limiting a dependent claim, but not limiting the independent claim in which it appears”). This approach appears to comport with the general principle, for example, that “[e]ach claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims.” 35 U.S.C. § 282.

At least one court has found, however, that even though there is no “bright-line rule,” a preamble term providing antecedent basis for a dependent claim “support[ed] the Court’s conclusion” that the preamble of the independent claim was limiting. *PersonalWeb Techs. LLC v. Int’l Bus. Machines Corp.*, No. 16-CV-01266-EJD, 2017 WL 2180980, at *13, n.15 (N.D. Cal. May 18, 2017) (Davila, J.).

Here, the recitals of “server” and “intermediary server” in above-reproduced Claims 13 and 23 not only provide antecedent basis for dependent claims but also do more than merely provide “reference points . . . that aid in defining” the claimed invention. *C.R. Bard, Inc. v. M3*

Sys., Inc., 157 F.3d 1340, 1350 (Fed. Cir. 1998). Instead, the preambles of Claims 13 and 23 give “life, meaning, and vitality” to the interactions involving the first computer and the second computer recited in the bodies of Claims 13 and 23. *Pitney Bowes*, 182 F.3d at 1305. This understanding is consistent with disclosures in the specification. *See, e.g.*, ’476 Patent at 2:52–56, 3:44–4:41 (“management server 28”) & Figs. 1 & 2.

The Court therefore hereby finds that **the preambles of Claims 13 and 23 of the ’476 Patent are limiting.**

XII. DISPUTED TERMS IN U.S. PATENT NO. 9,369,539

The ’539 Patent, titled “Method and Device for Power Saving for Downloading Files,” issued on June 14, 2016, and bears an earliest priority date of July 26, 2010. The Abstract of the ’539 Patent states:

A mobile device and related method includes a power save mode to reduce battery consumption of the mobile device. The user is queried whether to enter the power save mode and a download request from another mobile device associated with the user is delayed while the device is in the power save mode.

P. “delayed for download”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning	Plain and ordinary meaning ¹³

(Dkt. No. 82, Ex. B, at 3; Dkt. No. 97, at 27; Dkt. No. 100, at 1; Dkt. No. 104, at 61 & 63.) The parties submit that this term appears in Claims 1 and 7 of the ’539 Patent. (*Id.*)

Plaintiff argues that “Apple’s proposed construction contradicts the surrounding claim language and improperly seeks to import two limitations—that a download must be ‘originally scheduled’ at a time and that the download must be moved to some later definite time—that

¹³ Defendant previously proposed: “move the timing for download to a time after the download was originally scheduled.” (Dkt. No. 82, Ex. B, at 3.)

exclude preferred embodiments disclosed in the patent.” (Dkt. No. 97, at 28.) Plaintiff also argues that “the extrinsic evidence Apple relies upon for its construction, which should not be credited over the intrinsic record, does not require the limitations Apple seeks to import.” (*Id.*) Further, Plaintiff argues that “the ’539 patent provides extensive teachings of delays that are not to a specified time, but instead are until a condition is satisfied.” (*Id.*, at 29.)

Defendant responds:

[fn:] Based on the statements in SEVEN’s briefing and its expert declaration, to narrow the parties’ disputes, Apple adopts SEVEN’s articulation of the term’s plain and ordinary meaning.

* * *

Specifically, “delayed for download” refers to a content selected for download that is delayed, beginning when the first mobile device is in the power save mode and ending when the second mobile device is not in power save mode.

(Dkt. No. 100 at 1 & n.1.) Plaintiff’s reply brief does not address this term. (See Dkt. No. 102.)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

Based on the agreement reached by the parties, the Court hereby construes “**delayed for download**” to have its **plain meaning**.

XIII. DISPUTED TERMS IN U.S. PATENTS NO. 9,769,176 AND 10,243,962

The ’176 Patent and the ’962 Patent are both titled “Multiple Data Store Authentication” and both bear an earliest priority date of April 21, 2005. The ’176 Patent issued on September 19, 2017, and the ’962 Patent issued on March 26, 2019. The Abstracts of the ’176 Patent and the ’962 Patent are the same and state:

Systems and methods for authenticating access to multiple data stores substantially in real-time are disclosed. The system may include a server coupled to a network, a client device in communication with the server via the network and a plurality of data stores. The server may authenticate access to the data stores and forward information from those stores to the client device. An exemplary authentication method may include receipt of a request for access to data. Information concerning

access to that data is stored and associated with an identifier assigned to a client device. If the identifier is found to correspond to the stored information during a future request for access to the store, access to that store is granted.

Q. “registration information”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
“information to access a service”	“user information to access a service”

(Dkt. No. 82, Ex. B, at 63; *see id.*, at 36; Dkt. No. 97, at 30; Dkt. No. 100, at 22; *see* Dkt. No. 104-1, at 66.) The parties submit that this term appears in Claims 1 and 14 of the ’176 Patent and Claims 1 and 23 of the ’962 Patent. (*Id.*, at 66, 68, 70 & 72.)

(1) The Parties’ Positions

Plaintiff argues that “[t]he disclosure of a preferred embodiment where device information is ‘registration information’ shows Apple’s construction is wrong.” (Dkt. No. 97, at 31.) Plaintiff also argues that “Apple’s construction contradicts the prosecution history.” (*Id.*)

Defendant responds: “Apple agrees that ‘registration information’ ‘may include information about the client device.’ The remaining dispute appears to be whether ‘registration information’ consists *only* of device information.” (Dkt. No. 100, at 22 (citation omitted).) Defendant urges that “the patents explain that ‘registration information’ must include at least some user information” because “the patent repeatedly and consistently explains ‘registration’ is something done for a user.” (*Id.*, at 22 & 23 (footnote omitted).) Defendant emphasizes that “[n]o disclosure contemplates ‘registration information’ consisting only of information about a client device.” (*Id.*, at 23.)

Plaintiff replies:

Apple admits that “registration information may include information about the client device,” and is not limited to “user information.” Opp. at 22. Yet, Apple urges its narrow “user information” only construction because “the patents explain that registration must include at least some user information.” Opp. at 22. Apple’s

own admission is fatal. If registration information “may include client device information,” then the term is not limited to “user information,” regardless of whether or not registration information must include some user information.

(Dkt. No. 102, at 11.) Plaintiff also argues that “[t]he specification teaches that the registration information need not even include user information . . .” (*Id.* (citing ’176 Patent at 13:2–7).)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Claim 1 of the ’176 Patent, for example, recites (emphasis added):

1. A server for providing access to one or more data stores, comprising:
 - a memory and a processor, the server communicatively coupled to a network and the one or more data stores, wherein the server is configured to:
 - send a first identifier for a client device upon the client device communicating with the server for the client device to present the first identifier in a subsequent connection with the server;
 - receive *registration information* for a data store from the client device, wherein a second identifier is generated and associated with the data store and the *registration information*, wherein the second identifier is send [*sic*] to the client device;
 - receive, via the subsequent connection with the client device, a request for the client device to receive information from the data store, wherein the subsequent connection includes the first identifier;
 - configure a service to receive data from the data store on behalf of the client device, wherein the service is based on the second identifier;
 - receive a first message indicative of new information at the data store;
 - transmit a second message to the client device in response to receipt of the first message;
 - wherein additional information associated with the first message is sent from the data store to the client device upon receipt of the second message by the client device.

As to the prosecution history, Plaintiff discusses the “Katsube” reference (United States Patent Application Publication No. 2004/0249961) cited by the patent examiner. (Dkt. No. 97,

Ex. NN, May 16, 2017 Notice of Allowability, at 3). Katsume discloses receiving registration information and states:

The above-described registration information may include a postal code or an address at which the second information processing apparatus is connected to the network.

(*Id.*, Ex. MM, Katsume at [0021]; *see id.* at [0018]–[0020].) As Defendant notes, however, Katsume also refers to registration information including “user information.” (*Id.* at [0376].) On balance, Katsume does not significantly affect the Court’s analysis of the patents-in-suit.

The specification discloses that “registration information” can include information about a user and about a device:

A client 110 communicates with a server 130 via a network 120. The client 110 may include any type of device, such as a cellular telephone, a personal digital assistant (PDA), a personal computer, etc. In some instances, client 110 may be a data-enabled device that can, for example, send and receive electronic-mail, receive and send short message service (SMS) messages, access the Internet and so forth.

* * *

By completing the registration or a portion of the registration with information existing *about the user and the user device*, such as the device 110 discussed in FIG. 1, the user is only required to provide data for the registration not included in the information from the storage medium(s) 150.

* * *

For instance, *the information about the user and/or the client 110 associated with the user the server 130 originally captured may not provide enough information about the user and/or the client 110 required for the registration for the services associated with the provisioning event.* Accordingly, more information may be collected from the user. As part of the simplified provisioning process described in FIG. 4, or any other exemplary provisioning process, the user may be queried for additional information to complete the registration.

’176 Patent at 6:1–8, 12:20–25 & 13:2–11 (emphasis added).

The last of these above-reproduced disclosures refers to “information about the user *and/or the client.*” *Id.* at 13:2–11 (emphasis added). This does *not* support Plaintiff’s proposal that

“registration information” could be only device information because this disclosure uses “and/or” with reference to *missing* information (in which case “more information may be collected from the user”). *Id.*

Further, the Background of the Invention provides informative context by referring to a need for “simplified provisioning” for users:

Collecting the *user’s personal information* and storing the information in the databases is frequently done in order to maintain security and ensure that each user pays for the resources being requested. However, *users often resent the time it takes to register for access to the resources*. Further, users may register many times with the same service provider for different resources available via the service provider. Numerous minutes or hours spent entering information required by the service provider may deter users from subscribing to the various resources offered by the service provider. There is, therefore, a need for a system and method for simplified provisioning.

Id. at 1:66–2:11 (emphasis added).

The specification then discloses performing “registration for the user.” ’176 Patent at 8:63–67; *see id.* at 9:13–15 (same), 10:4–7 (“user information”; “where to bill the user”), 6:12–13 (“registering a user”), 11:39–41 (“information about the user”), 11:47–48 (“information associated with a user is stored”), 12:15–35 (“register the user” by using “information . . . that was previously collected”; “the user experiences a streamlined provisioning process”) & 13:13–14 (“the server 130 stores information associated with the user”); *see also id.* at 1:26–42 (“Conventionally, a user purchasing services associated with a device needs to register with a service provider to provide specific information about the user.”), 6:11–18, 6:66–7:2, 9:11–19, 10:54–57, 12:15–28, 12:39–40, 12:56–57 & 13:8–11.

In light of this repeated, consistent context provided by the patents-in-suit, the term “registration information” should be construed as including user information. *See Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1144–45 (Fed. Cir. 2005) (construing the term “board” to mean

“wood cut from a log” in light of the patentee’s consistent usage of the term and noting that the patentee “is not entitled to a claim construction divorced from the context of the written description and prosecution history”); *see also Wi-LAN USA, Inc. v. Apple Inc.*, 830 F.3d 1374, 1382 (Fed. Cir. 2016) (“Consistent use of a term in a particular way in the specification can inform the proper construction of that term.”). The contrary opinions of Plaintiff’s expert, Dr. Mark Jones, are unpersuasive. (*See* Dkt. No. 97-58, Dec. 20, 2019 Jones Decl., at ¶¶ 70–76.)

The Court therefore hereby construes “**registration information**” to mean “**information, including user information, that is used to access a service.**”

XIV. DISPUTED TERMS IN U.S. PATENT NO. 10,039,029

The ’029 Patent, titled “Predictive Fetching of Mobile Application Traffic,” issued on July 31, 2018, and bears an earliest priority date of July 26, 2010. The Abstract of the ’029 Patent states:

A mobile device having an established multiplexed connection for optimizing communications is configured for communicating over the established multiplexed connection, predicting an activity session based on application access history, and fetching data for an application before the activity session based on the predicted activity session. A second connection is established that is other than the established multiplexed connection with the mobile device. The fetched data is transmitted over the second connection.

R. “a mobile device having an established multiplexed connection for optimizing communications”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
The preamble is not limiting.	The preamble “[a] mobile device having an established multiplexed connection for optimizing communications” is limiting.

(Dkt. No. 82, Ex. B, at 43; Dkt. No. 97, at 31; Dkt. No. 100, at 26.) The parties submit that this term appears in Claim 1 of the ’029 Patent.

(1) The Parties' Positions

Plaintiff argues that “a claim term in the body of the claim having antecedent basis in the preamble is not sufficient to make the preamble limiting.” (Dkt. No. 97, at 32.) Plaintiff submits that “essentially the same language (‘the established multiplexed connection’) already appears in the claim,” and “Apple does not contend that some language in the preamble defines what an ‘established multiplexed connection’ is—Apple is separately disputing the meaning of that term.” (*Id.*, at 33.)

Defendant responds that relevant claims depend on the preamble for antecedent basis, and “[t]he ‘multiplexed connection’ forms a fundamental component of the claimed invention in that it allows a reference for defining the ‘second connection’ over which data is fetched.” (Dkt. No. 100, at 26.) Defendant argues that “[t]he claim body requires *communicating* over an established multiplexed connection and the preamble recites that the device *has* an established multiplexed connection.” (*Id.*, at 27.)

Plaintiff replies that Defendant “cannot show that the preamble must be limiting to complete the invention articulated in the body of the claim.” (Dkt. No. 102, at 12.) Plaintiff also argues that “[i]ndependent claim 12 shows the phrase from the preamble of claim 1 identified by Apple need not be limiting to fully define the operative invention.” (*Id.*)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

Legal principles regarding preambles are set forth above as to Claims 13 and 23 of the '476 Patent.

Claim 1 of the '029 Patent recites (emphasis added):

1. A mobile device having *an established multiplexed connection for optimizing communications*, the mobile device comprising:

a memory; and
a processor configured for:
receiving a selection from a user whether to enable an application for fetching;
communicating over the established multiplexed connection;
predicting an activity session based on application access history, wherein the application access history includes historical application usage;
fetching data for the application before the activity session to support the predicted activity session before beginning the activity session, wherein the application is operating in a background of the mobile device, wherein the data is fetched if the fetching is enabled by the user selection for the application, wherein at least some of the fetched data is for background requests made by the application on the mobile device;
wherein a second connection is established that is other than the established multiplexed connection with the mobile device,
wherein fetching data occurs over the second connection;
and
disconnecting from the second connection.

Plaintiff cites *Schumer v. Laboratory Computer Systems, Inc.*, which found a preamble not limiting, stating: “Here, the preamble simply describes features that necessarily exist in any coordinate system for a digitizer—a point of origin, an angle of rotation, and a scale. The preamble does not specify how the device is to operate with respect to those features.” 308 F.3d 1304, 1310 (Fed. Cir. 2002). In the present case, by contrast, the preamble does not describe an environment or inherent characteristics but rather sets forth a specific structure that does not “exist in any [relevant] system.” *Id.* *Schumer* is therefore distinguishable.

As to the preamble recital of “[a] mobile device,” this structural recital appears as part of the recital of “an established connection,” which provides antecedent basis for “the established connection” recited in the body of the claim. The preamble recital of a “mobile device” is therefore limiting. *See Proveris Scientific Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1373 (Fed. Cir. 2014) (“The phrase ‘the image data’ clearly derives antecedent basis from the ‘image data’ that is

defined in greater detail in the preamble as being ‘representative of at least one sequential set of images of a spray plume.’”) (emphasis added).

Nonetheless, “the purpose or intended use of the invention . . . is of no significance to claim construction . . .” *Pitney Bowes*, 182 F.3d at 1305. Here, the preamble phrase “for optimizing communications” is descriptive, rather than structural or explanatory, and in the present case is therefore not limiting. *See Acceleration Bay*, 908 F.3d at 769–71 (in preamble reciting “[a] computer network for providing an information delivery service for a plurality of participants,” finding “information delivery service” to be non-limiting because it “merely describe[s] intended uses for what is otherwise a structurally complete invention”); *see also Deere*, 703 F.3d at 1358 (“if the body of the claim describes a structurally complete invention, a preamble is not limiting where it ‘merely gives a name’ to the invention, extols its features or benefits, or describes a use for the invention”) (quoting *Catalina*, 289 F.3d at 809). The contrary opinions of Defendant’s expert, Dr. Adam Porter, are unpersuasive. (*See* Dkt. No. 97, Ex. CC, Dec. 20, 2019 Porter Decl., at ¶ 88–91.)

The Court therefore hereby finds that **the preamble of Claim 1 of the ’029 Patent is limiting as to “[a] mobile device having an established multiplexed connection . . . , the mobile device comprising,” but is not limiting as to the phrase “for optimizing communications.”**

S. “established multiplexed connection”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning; to the extent construction is necessary “connection used to send or receive messages for two or more applications” ¹⁴	“a single, proxied connection for transmission of data from multiple applications”

¹⁴ Plaintiff previously proposed only: “Plain and ordinary meaning.” (Dkt. No. 82, Ex. B, at 43.)

(Dkt. No. 82, Ex. B, at 43; Dkt. No. 97, at 33; Dkt. No. 100, at 27.) The parties submit that this term appears in Claims 1, 2, 12, and 13 of the '029 Patent.

(1) The Parties' Positions

Plaintiff argues that “[t]he patent does not expressly define ‘established multiplexed connection’ or ‘multiplexed connection’ or disavow the plain meaning of either phrase.” (Dkt. No. 97, at 33.) “Instead,” Plaintiff argues, “Apple and its expert attempt to import implementation details from the specification or elsewhere into the claims.” (Dkt. No. 97, at 34.) “[R]egarding the ‘single’ connection requirement proposed by Apple, it is unclear what, other than confusion, this limitation adds.” (*Id.*) Plaintiff also argues that Defendant improperly attempts to import a “proxied” limitation from particular embodiments, and Plaintiff submits that Defendant’s proposal of “proxied connection” lacks any known meaning in the art and would therefore lead to additional disputes. (*Id.*, at 35; *see id.* at 35–36.) Finally, Plaintiff argues that Defendant’s proposal of “transmission of data from multiple applications” “contradicts both the plain meaning of the term and the teachings of the patent.” (*Id.*, at 36.)

Defendant responds that “[t]he term ‘established multiplexed connection’ merits construction because the term ‘multiplex’ can have different meanings in different technical contexts and this is not a phrase that would be readily understandable by the jury.” (Dkt. No. 100, at 27.) Defendant argues: “Apple’s construction includes the adjectives ‘single’ and ‘proxied’ in order to give effect to the term ‘established.’ SEVEN’s construction, in contrast, reads out this limitation entirely and for that reason cannot be correct.” (*Id.*, at 28.) Defendant also argues that its proposal of “single” “enforce[s] the requirement that the communication must exist over a ‘single’ established connection rather than multiple or ephemeral connections that may or may not exist at the time of the data transmission.” (*Id.*) Finally, Defendant responds as to Plaintiff’s

proposal of “messages” that “the patent discusses the multiplexed connection in the context of ‘data request[s]’ or ‘data transfers’—not ‘messages.’” (*Id.*, at 30 (citing ’029 Patent at 28:32–36).)

Plaintiff replies that “Apple points to no disclaimer, lexicography, or generally accepted understanding of ‘established multiplexed connection,’ and the Court should reject [Apple’s proposed] limitation of the claims.” (Dkt. No. 102, at 12.) “Regarding ‘proxied connection,’” Plaintiff argues that “the term does not appear in the patent and is not a term of art.” (*Id.*, at 13.)

At the March 13, 2020 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Claim 1 of the ’029 Patent, for example, recites (emphasis added):

1. A mobile device having an *established multiplexed connection* for optimizing communications, the mobile device comprising:
 - a memory; and
 - a processor configured for:
 - receiving a selection from a user whether to enable an application for fetching;
 - communicating over the *established multiplexed connection*;
 - predicting an activity session based on application access history, wherein the application access history includes historical application usage;
 - fetching data for the application before the activity session to support the predicted activity session before beginning the activity session, wherein the application is operating in a background of the mobile device, wherein the data is fetched if the fetching is enabled by the user selection for the application, wherein at least some of the fetched data is for background requests made by the application on the mobile device;
 - wherein a second connection is established that is other than the *established multiplexed connection* with the mobile device,
 - wherein fetching data occurs over the second connection; and
 - disconnecting from the second connection.

The specification discloses:

In some embodiments, if an activity session is detected or created by the local proxy, *the local proxy can request a multiplexed connection be established to optimize the signaling during the session*. If an activity session is identified by the server, the existing TCP connection opened from the mobile device can be *converted into a multiplexed session and used for the optimized connection*. Alternatively, the first data request from the mobile device can be accomplished outside of the multiplexed connection, and the multiplexed connection can be established for subsequent data transfers.

* * *

A benefit of a distributed proxy architecture (such as that described above), where each end-point (i.e., the proxy in the client and the proxy in the server) is well known by the system, is that a single TCP connection can be used to transport all of the application traffic during an established activity session. The WebMUX and SCP protocols allow *multiplexing* of multiple sessions of application-level protocols (such as HTTP) over a single TCP connection. In one embodiment of the present invention, an activity session may be supported by a *multiplexed* TCP connection using these or a similar mechanism. In another embodiment, the activity session may be supported by a TCP connection pool, with the connection reuse enhanced by nature of connecting to a single proxy server (or proxy in a server) for all requests.

'029 Patent at 28:26–36 & 30:30–43 (emphasis added).

The specification thus explains that although there may be multiple connections, a particular connection is “multiplexed” if the particular connection is used to communicate data for multiple applications. Plaintiff’s arguments to the contrary, such as that “[t]he ’029 patent deals with mobile devices that connect to wireless network base stations over a series of short-lived physical-layer connections,” do not compel otherwise. (Dkt. No. 102, at 12 (citing ’029 Patent at 30:30–45 & Fig. 1A).) Although a particular connection could itself be composed of multiple links or connections in an underlying communication network, the word “multiplexed” should be given effect as requiring that a particular multiplexed connection is used to communicate data for multiple applications. *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) (“claims are interpreted with an eye toward giving effect to all terms in the claim.”).

Defendant further argues that “in order to have a ‘multiplexed’ connection in the ’029 patent, the connection must be a ‘proxied’ connection.” (Dkt. No. 100, at 29.) No such limitation appears in above-reproduced Claim 1 of the ’029 Patent. Indeed, none of the claims of the ’029 Patent recite “proxy” or “proxied” or any other similar term. Defendant notes that the originally-filed claims of the application that issued as the ’029 Patent included a “proxy server” limitation. (See Dkt. No. 97, Ex. PP, Application, at 71 (p. 2 of 9 of Ex. PP).) The applicant cancelled these claims in a Preliminary Amendment during prosecution. (See *id.*, Preliminary Amendment (p. 5 of 9 of Ex. PP).)

Defendant fails to demonstrate how these cancelled claims purportedly warrant importing a “proxy” back into the claims of the issued ’029 Patent. The opinions of Defendant’s expert, Dr. Adam Porter, are likewise unpersuasive. (See Dkt. No. 97, Ex. CC, Porter Decl., at ¶¶ 92–96.) The *ACCO Brands* and *Applied Materials* cases cited by Defendant do not compel otherwise. See *ACCO Brands, Inc. v. Micro Sec. Devices, Inc.*, 346 F.3d 1075, 1079 (Fed. Cir. 2003) (“The presence in the ’989 specification of embodiments carried over from the parent application, but claimed in other patents, does not serve to broaden the scope of the ’989 claims that were the subject of the divisional application.”); *see also Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1579 (Fed. Cir. 1996) (J. Mayer, concurring) (“Although there may be some variation in the scope of the claimed subject matter, a continuation application is based solely on the disclosure of a parent application.”). Further, Defendant fails to show that the disclosures in the specification regarding proxies set forth any relevant definition or disclaimer, and specific proxy features of particular disclosed embodiments should not be imported into the claims. *See Phillips*, 415 F.3d at 1323.

As to Plaintiff’s proposal of “messages,” Defendant’s proposal of referring to “data” better comports with disclosure in the specification regarding multiplexing. *See* ’029 Patent at 28:34–36 (“the multiplexed connection can be established for subsequent data transfers”). At the March 13, 2020 hearing, Plaintiff was amenable to referring to “data” rather than “messages.” Finally, the disclosure of “application *traffic*” supports Plaintiff’s proposal of “send or receive . . . for . . . applications” rather than Defendant’s proposal of “transmission . . . from . . . applications.” *See, e.g., id.* at 30:34. Defendant does not appear to dispute this final point. (*See* Dkt. No. 100, at 30 (explaining that Defendant’s proposal “invokes the word ‘transmission’ simply to capture the notion that the connection transmits data in one direction or the other without limiting the actor that is responsible for transmission”).)

The Court therefore hereby construes “**established multiplexed connection**” to mean “**a particular established connection that is configured for sending or receiving data for multiple applications.**”

T. “activity session”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Plain and ordinary meaning	“pattern of multiple mobile application use by a mobile user that can be ‘predicted’ by using contextual clues available to a mobile client proxy”

(Dkt. No. 82, Ex. B, at 46; Dkt. No. 97, at 37; Dkt. No. 100, at 30; Dkt. No. 104-1, at 76.) The parties submit that this term appears in Claims 1 and 12 of the ’029 Patent. (*Id.*, at 76 & 78.)

(1) The Parties’ Positions

Plaintiff argues that “[a]ctivity session” is a plain English phrase that requires no construction,” and Defendant fails to show any lexicography. (Dkt. No. 97, at 37; *see id.* at 37–38.)

Defendant responds that “activity session” is a term coined by the patentees, and Defendant argues that a lexicography appears in a provisional patent application that the ’029 Patent incorporates by reference. (Dkt. No. 100, at 31.) Defendant submits that “[a]t no point in the remainder of the ’029 specification did SEVEN rescind this definition, offer a different definition, or even qualify that this definition applies only to certain embodiments.” (*Id.*)

Plaintiff replies that “Apple’s proffered definition of ‘activity session’ as a time-independent ‘pattern’ is inconsistent with the ’839’s [(provisional patent application’s)] use of ‘activity session’ and should be rejected.” (Dkt. No. 102, at 13–14.)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

Claim 1 of the ’029 Patent, for example, recites (emphasis added):

1. A mobile device having an established multiplexed connection for optimizing communications, the mobile device comprising:
 - a memory; and
 - a processor configured for:
 - receiving a selection from a user whether to enable an application for fetching;
 - communicating over the established multiplexed connection;
 - predicting an *activity session* based on application access history, wherein the application access history includes historical application usage;
 - fetching data for the application before the *activity session* to support the predicted *activity session* before beginning the *activity session*, wherein the application is operating in a background of the mobile device, wherein the data is fetched if the fetching is enabled by the user selection for the application, wherein at least some of the fetched data is for background requests made by the application on the mobile device;
 - wherein a second connection is established that is other than the established multiplexed connection with the mobile device,
 - wherein fetching data occurs over the second connection;
 - and

disconnecting from the second connection.

The '029 Patent incorporates-by-reference United States Provisional Patent Application No. 61/408,839, which discloses:

As will be described, in some embodiments the present invention is directed to a method for augmenting a distributed proxy-based solution by introducing the concept of an “activity session”. An activity session is a pattern of multiple mobile application use by a mobile user that can be “predicted” by using contextual clues available to a mobile client proxy.

* * *

In the context of the present invention, an activity session is a pattern of multiple mobile application use by a mobile user that can be “predicted” (or otherwise anticipated or expected) based on contextual clues available to a mobile client proxy or to a proxy server in a distributed proxy environment.

(Dkt. No. 97, Ex. RR, Provisional Patent Application, at 2 & 9; *see* '029 Patent at 1:32–35 & 1:58–59.)

“To act as its own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).)

Here, the above-reproduced disclosures define what an activity session “is,” and the quotation marks around “activity session” reinforce the clarity of the lexicography. *See Sinorgchem Co., Shandong v. Int’l Trade Comm’n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007) (“The term ‘controlled amount’ is set off by quotation marks—often a strong indication that what follows is a definition. Moreover, the word ‘is,’ again a term used here in the specification, may ‘signify that a patentee is serving as its own lexicographer.’ As such, the patentee must be bound by the express definition.”) (citations omitted).

Plaintiff argues that these disclosures do not support Defendant's proposed construction because Defendant's proposal refers to an activity session that has not yet happened (Dkt. No. 97, at 37–38), and Plaintiff cites disclosure in the provisional patent application referring to "activity that is being processed by the server since the last user activity session." (Dkt. No. 97, Ex. RR, Provisional Patent Application, at 10.) But the above-reproduced disclosures, themselves, state than an activity session "can be 'predicted,'" which thus refers to the future. (*Id.*, at 2.) The quotation marks around the word "predicted" do not uncut the lexicography because the above-reproduced disclosures demonstrate that the patentee used the word "predicted" broadly. (*See id.*, at 9.)

Further, Plaintiff cites disclosure in the provisional patent application that an activity session is not limited to being "identified by the client" but alternatively can be "identified by the server." (*Id.*, at 12.) Defendant counters that "Apple's construction does not exclude that 'contextual clues available to a mobile client proxy' are also available to a server." (Dkt. No. 100, at 32.)

On balance, the above-reproduced disclosures in the '839 Application set forth a lexicography as to the term "activity session," and this lexicography governs the meaning of this term in the claims of the '029 Patent. *See Phillips*, 415 F.3d at 1316 ("[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs."); *see also* '029 Patent at 1:32–35 & 1:58–59 (incorporating by reference). This result is particularly appropriate here because Plaintiff does not show that the term "activity session" has had any well-established meaning in the art at any relevant time. *See Intervet, Inc. v. Merial Ltd.*, 617 F.3d 1282, 1287 (Fed. Cir. 2010) (citing *Phillips*, 415 F.3d at 1315) ("Idiosyncratic language, highly technical

terms, or terms coined by the inventor are best understood by reference to the specification.”); *see also Goldenberg v. Cyrogen, Inc.*, 373 F.3d 1158, 1164 (Fed. Cir. 2004) (citation omitted) (“Where a claim term has no ordinary and customary meaning, a court must resort to the remaining intrinsic evidence—the written description and the prosecution history—to obtain the meaning of that term.”). The contrary opinions of Plaintiff’s expert, Dr. Michael Goodrich, do not compel otherwise. (See Dkt. No. 97-57, Dec. 20, 2019 Goodrich Decl., at ¶¶ 132–139.)

Finally, the specification of the ’029 Patent is consistent with this lexicography, disclosing proactively caching data:

Once an activity session is established and has been acknowledged by the local proxy and/or proxy server, the proxy server can now *proactively cache data* (e.g., access the URLs or application servers/providers anticipated in the predicted activity sessions) *for more rapid access to content anticipated to be needed in the predicted activity session.*

’029 Patent at 28:37–42 (emphasis added); *see id.* at 28:6–36. The *MasterObjects* case cited by Plaintiff does not compel otherwise. *See MasterObjects, Inc. v. Yahoo!, Inc.*, No. C 11-02539 JSW, 2013 WL 6185475, at *6–*7 (N.D. Cal. Nov. 26, 2013). Indeed, *MasterObjects* declined to “import a specific limitation from a glossary which is *expressly limited to a preferred embodiment.*” (*Id.*, at *7 (emphasis added).)

The Court therefore hereby construes “**activity session**” to mean “**a pattern of multiple mobile application use by a mobile user that can be predicted (or otherwise anticipated or expected) based on contextual clues available to a mobile client proxy or to a proxy server in a distributed proxy environment.**”

U. “wherein the data is fetched if the fetching is enabled by the user selection for the application”

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
Not indefinite	Indefinite

(Dkt. No. 82, Ex. B, at 47; Dkt. No. 97, at 38; Dkt. No. 100, at 32; Dkt. No. 104-1, at 76.) The parties submit that this term appears in Claims 1 and 12 of the '029 Patent. (*Id.*, at 76 & 79.)

(1) The Parties' Positions

Plaintiff argues that “[t]he clause Apple contends is indefinite makes clear that the ‘fetching data . . .’ step is contingent upon a user selection enabling fetching for the application whose data is to be fetched.” (Dkt. No. 97, at 39.)¹⁵

Defendant responds that these claims are unclear because “if data is already fetched, what does it mean to additionally fetch data if fetching is enabled?” (Dkt. No. 100, at 33.) Moreover, Defendant argues, “the claimed concept—‘fetching data’ contingent on whether fetching is enabled for a particular application—simply finds no support in either the '029 patent or its prosecution history, leaving a skilled artisan with no guidance as to its scope.” (*Id.*)

Plaintiff replies:

These wherein clauses are easily understood in the context of the claim. Apple does not advance an alternative interpretation of the claim that would prevent reasonable determination of its scope—the standard under *Nautilus*. Apple only complains that limiting the “fetching” limitation with a wherein clause is somehow “redundant” or “ambiguous,” neither of which are sufficient for a finding of indefiniteness.

(Dkt. No. 102, at 14 (citing Dkt. No. 97-57, Dec. 20, 2019 Goodrich Decl., at ¶ 140).)

At the March 13, 2020 hearing, the parties presented no oral arguments as to this term.

(2) Analysis

Claim 1 of the '029 Patent, for example, recites (emphasis added):

1. A mobile device having an established multiplexed connection for optimizing communications, the mobile device comprising:

¹⁵ Plaintiff also cites IPR proceedings in which Defendant did not assert indefiniteness as to the present disputed term, but Plaintiff fails to show how this is relevant or probative in the present litigation. (*See* Dkt. No. 97, at 39.)

a memory; and
a processor configured for:
receiving a selection from a user whether to enable an application for fetching;
communicating over the established multiplexed connection;
predicting an activity session based on application access history, wherein the application access history includes historical application usage;
fetching data for the application before the activity session to support the predicted activity session before beginning the activity session, wherein the application is operating in a background of the mobile device, *wherein the data is fetched if the fetching is enabled by the user selection for the application*, wherein at least some of the fetched data is for background requests made by the application on the mobile device;
wherein a second connection is established that is other than the established multiplexed connection with the mobile device,
wherein fetching data occurs over the second connection;
and
disconnecting from the second connection.

Defendant argues that the “fetching data . . .” limitation “simply demands ‘fetching data,’” and “[t]his leaves the person of ordinary skill in the art unsure of the scope of the claim as to the redundant limitation that ‘data is fetched if the fetching is enabled.’” (Dkt. No. 100, at 32.)

A fair reading of the claim as a whole, however, is that the disputed term sets forth a condition for performance of “fetching data,” and that condition refers to the “selection from a user whether to enable an application for fetching.” Indeed, the disputed term and the “selection” limitation were added to the claim by the same amendment, namely an examiner amendment entered as part of a Notice of Allowability. (*See* Dkt. No. 102, Ex. GGG, Mar. 30, 2018 Notice of Allowability (SEVEN_APPLE-000000866); *see also id.*, Examiner’s Amendment, at 2 & 5 (SEVEN_APPLE-000000867, -870).) The same relevant analysis applies to Claim 12, the other claim here at issue.

Because the claim “inform[s] those skilled in the art about the scope of the invention with reasonable certainty,” Defendant fails to demonstrate indefiniteness. *Nautilus*, 572 U.S. at 910; see *Sonix*, 844 F.3d at 1377 (“Indefiniteness must be proven by clear and convincing evidence.”). The deposition testimony of Plaintiff’s expert, Dr. Michael Goodrich, cited here by Defendant, does not compel otherwise. (See Dkt. No. 100, Ex. 11, Jan. 15, 2020 Goodrich dep. at 139:19–143:9 (“Just sitting here today, I’m not immediately recalling where this notion of enabling fetching is taught.”).) Further, the contrary opinions of Defendant’s expert, Dr. Adam Porter, are unpersuasive. (See Dkt. No. 97, Ex. CC, Dec. 20, 2019, at ¶¶ 114–125.)

The Court therefore hereby expressly rejects Defendant’s indefiniteness argument. Defendant presents no alternative proposed construction, and no further construction is necessary.

The Court accordingly hereby construes “**wherein the data is fetched if the fetching is enabled by the user selection for the application**” to have its **plain meaning**.

XV. PROCESSOR TERMS

The so-called “processor” terms appear in the ’127, ’056, ’734, ’550, ’619, ’914, ’771, ’476, ’539, ’029, and ’986 Patents. All but the ’986 Patent are discussed above. The ’986 Patent, titled “Mobile Device Configured for Communicating with Another Mobile Device Associated with an Associated User,” issued on July 18, 2017, and bears an earliest priority date of January 11, 2008. The Abstract of the ’986 Patent states:

Systems and methods for operating a mobile virtual network are disclosed. A mobile virtual network operator is disclosed as an entity that provides a mobile networking service to a user, the mobile networking service being provided using a physical mobile network provided by a third party. The mobile virtual network operator may provide content distribution services, data access services, or messaging services to a user of a mobile device.

V. “processor configured” and Similar Terms

<p style="text-align: center;">V.(1) “processor configured for” (’539 Patent, Claim 7) (Dkt. No. 82, Ex. B, at 1–2; Dkt. No. 104, at 62–63.)</p>	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
<p>This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.</p>	
	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“querying a user by displaying a notification on a user interface of the mobile device to select whether to enter a power save mode; upon selection by a user of entering the power save mode for the mobile device, optimizing traffic at the mobile device by blocking transmission of at least some traffic from the mobile device”</p> <p>Structure:</p> <p>Indefinite</p>
<p style="text-align: center;">V.(2) “a processor configured to” (’550 Patent, Claims 15, 32) (Dkt. No. 82, Ex. B, at 6–8; Dkt. No. 104, at 31–32 & 35–36.)</p>	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
<p>This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.</p>	
	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function (for claim 15):</p> <p>“send application data requests to a host over a first connection at a first frequency, receive data from the network responsive to the sent application data requests, select a power management mode from a plurality of power management modes based on an amount of battery power remaining on the mobile device, wherein the selection of a power management mode is further based on the amount of battery power remaining being below a predetermined</p>

	<p>amount, change the frequency that application data requests are sent from the first frequency to a second frequency associated with the selected power management mode, exit the low power mode when an amount of battery power remaining is above a predetermined amount”</p> <p>Function (for claim 32):</p> <p>“monitor a remaining battery level of the battery, send application data requests to a host over a first connection at a first frequency, receive data from the host responsive to the sent application data requests, operate in a normal operations mode when a remaining battery level is above a predetermined amount, select a low power mode from a plurality of power management modes in order to conserve the remaining battery level when the remaining battery level is below the predetermined amount, wherein the low power mode is based on amount of battery power remaining on the mobile device being below a predetermined amount, change the frequency that application data requests are sent from the first frequency to a second frequency associated with the low power management mode, exit the low power management mode when the remaining battery level is above the predetermined amount; and receive a trigger that notifies the mobile device of new data, wherein the trigger at least in part causes the mobile device to send application data requests”</p> <p>Structure:</p> <p>Indefinite</p>
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V.(3) “a processor configured for”
 (’914 Patent, Claim 11)
 (Dkt. No. 82, Ex. B, at 10–11; Dkt. No. 104, at 45.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receiving a unique authentication token from each of a first device an indication of content available from a content provider, transmitting selected content to the first device in response to a user selection of content available from the content provider at the first device, and automatically transmitting the selected content to the second device, where the selected content is transmitted to the first device through a first connection and to the second device through a second connection distinct from the first connection”</p> <p>Structure:</p> <p>Indefinite</p>

V.(4) “a processor in communication with the memory and configured to execute instructions stored in the memory to”

(’127 Patent, Claim 33)

(Dkt. No. 82, Ex. B, at 14–15; Dkt. No. 104-1, at 7–9.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receive a selection from a user whether to optimize traffic of a first application executing in a background of the mobile device; optimize background traffic of the first application; receive a selection from a user whether to enter a power save mode, where the power save mode is based on a battery level of the mobile device; upon selection to enter the power save mode, adjust a timing of activities of a second application executing in the background of the mobile device to reduce usage of at least one resource of the mobile device; exit the power save mode, wherein the power save mode is exited based on a battery level or in response to the user directing the mobile device to exit the power save mode”</p> <p>Structure:</p> <p>Indefinite</p>

V.(5) Preamble of Claim 42 of the ’127 Patent

(Dkt. No. 82, Ex. B, at 16–17; Dkt. No. 104-1, at 10–11.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This [is] a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receive a selection from a user whether to optimize traffic of a first application executing in a background of the mobile device; optimize background traffic of the first application;</p>

	<p>receive a selection from a user whether to enter a power save mode, where the power save mode is based on a battery level of the mobile device; upon selection to enter the power save mode, adjust a timing of activities of a second application executing in the background of the mobile device to reduce usage of at least one resource of the mobile device; exit the power save mode, wherein the power save mode is exited based on a battery level or in response to the user directing the mobile device to exit the power save mode”</p> <p>Structure: Indefinite</p>
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V.(6) “a processor, the mobile device configured to”

(’056 Patent, Claims 1, 19)

(Dkt. No. 82, Ex. B, at 21–23; Dkt. No. 104-1, at 13–14 & 19–20.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function (for claim 1):</p> <p>“batch data from a first application and a second application for transmission to a respective first application server and a second application server over the wireless network, wherein, the batched data from the first application and the second application is batched while a backlight of the mobile device is off in response to inactivity of the mobile device; allow a first message from a remote server distinct from the first application server and the second application server to be received while the batched data from the first application and the second application is batched; wherein the first message from the remote server is directed to the first application and contains data from the first application server and is associated with the mobile device and the first application; transmit a second message associated with the first application to</p>

the remote server or the first application server in response to receipt of the first message from the remote server; transmit the batched data to the respective first application server and the second application server over the wireless network while the backlight of the mobile device remains off; wherein the batching of data for the first application and the second application can be enabled or disabled by a user of the mobile device on an application-by-application basis”

Function (for claim 19):

“batch data from a first application and a second application for transmission to a respective first application server and a second application server over the wireless network, wherein, the batched data from the first application and the second application is batched while a backlight of the mobile device is off in response to inactivity of the mobile device; wherein the mobile device is further configured to allow the first application to: receive a first message directed to the first application on the mobile device from a remote server distinct from the first application server and the second application server while the batching occurs; wherein the first message from the remote server contains data from the first application server and is associated with the mobile device and the first application; transmit a second message associated with the first application to the remote server or the first application server in response to receipt of the first message from the remote server; transmit the batched data to the respective first application server and the second application server over the wireless network while the backlight of the mobile device remains off, wherein the batching of data for the first application and the second application can be enabled or disabled by a user of the mobile device on an application-by-application basis”

Structure:
Indefinite

<p>V.(7) “a processor configured to” (’476 Patent, Claims 23, 33) (Dkt. No. 82, Ex. B, at 31–33.)</p>	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function (for claim 23):</p> <p>“receive a username and a password from a first computer; authenticate the username and the password with a user database; issue a token for the first computer after authenticating the username and the password, wherein a first point-to-point security association is negotiated with the first computer and a second point-to-point security association is negotiated with a second computer; receive a transaction message from the second computer, the transaction message comprising control data and payload data, wherein the control data includes information that provides authentication of a source of the transaction and transaction routing information, wherein the information includes the token; and transmit the payload data to the first computer based on the transaction routing information”</p> <p>Function (for claim 33):</p> <p>“encrypt first data of a first data path in a transaction using a first security association, wherein the first data path is through an intermediary server that provides connectivity between the first computer and a second computer, and wherein the first security association is not known to the intermediary server; wherein the transaction comprises a transaction message that includes control data and payload data; transmit the control data to the intermediary server, wherein the control data includes a token associated with the intermediary server and the token provides</p>

	<p>transaction routing information; encrypt second data of a second data path using a second security association, wherein the second data path is distinct from the intermediary server; and transmit the payload data through the second data path”</p> <p>Structure: Indefinite</p>
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V.(8) “a processor configured for”

(’986 Patent, Claims 1, 12, 23)

(Dkt. No. 82, Ex. B, at 34; Dkt. No. 104-1, at 89, 92 & 94.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“authenticating a user device, accessing or creating content in response to a selection by the user at an application of the first device; transmitting a representation of the accessed content to an application at a second device associated with the user, where the second device is authenticated over a mobile network, the content is transmitted to the second device in response to a selection at the second device, the selection identified accessed content at the first device to be transmitted, where after the second device is authenticated over the mobile network, it authenticates with the first device before the content is transmitted, and it is possible the connection is maintained between the first device and the second device to allow transmission of the representation even if the first device is not connected over the mobile network”</p> <p>Structure: Indefinite</p>

V.(9) “a processor and memory containing instructions executable by the processor whereby the device is operable to”

(’619 Patent, Claim 22)

(Dkt. No. 82, Ex. B, at 37; Dkt. No. 104-1, at 39.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“optically receive information including a displayed service activation code from a remote device; register the remote device for access to a messaging account using the service activation code; receive a message for the messaging account; encrypt the message using an encryption key; and send the message to the remote device”</p> <p>Structure:</p> <p>Indefinite</p>

V.(10) Preamble of Claim 51 of the ’619 Patent

(Dkt. No. 82, Ex. B, at 41; Dkt. No. 104-1, at 41–42.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“optically receiving information including a displayed service activation code from a remote device; registering the remote device for access to a messaging account using the service activation code; receiving a message for the messaging account; encrypting the message using an encryption key; and sending the message to the remote device, wherein the device is authenticated to access the messaging account”</p> <p>Structure:</p>

	Indefinite
<p style="text-align: center;">V.(11) “processor configured for” (’029 Patent, Claim 1) (Dkt. No. 82, Ex. B, at 44–45; Dkt. No. 104-1, at 74–75.)</p>	
Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receiving a selection from a user whether to enable an application for fetching; communicating over the established multiplexed connection; predicting an activity session based on application access history, wherein the application access history includes historical application usage; fetching data for the application before the activity session to support the predicted activity session before beginning the activity session, wherein the application is operating in a background of the mobile device, wherein the data is fetched if the fetching is enabled by the user selection for the application, wherein at least some of the fetched data is for background requests made by the application on the mobile device; wherein a second connection is established that is other than the established multiplexed connection with the mobile device, wherein fetching data occurs over the second connection; and disconnecting from the second connection”</p> <p>Structure:</p> <p>Indefinite</p>

V.(12) “processor coupled to the memory and configured to”

(’734 Patent, Claims 1, 2, 5–7)

(Dkt. No. 82, Ex. B, at 48; Dkt. No. 104-1, at 23.)

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
<p>This claim term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.</p>	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receive instructions from a user to enter a power save mode; while in the power save mode, block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application; while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity, user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests, wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device; exit the power save mode based on received instructions from the user to exit the power save mode, wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.”</p> <p>Structure:</p> <p>Indefinite</p>

V.(13) Preamble of Claim 1 of the '771 Patent
(Dkt. No. 82, Ex. B, at 54; Dkt. No. 104-1, at 49.)

Plaintiff's Proposed Construction	Defendant's Proposed Construction
To [sic] preamble does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receiving a token issued by an intermediary server; and transmitting a transaction message comprising payload data to the intermediary server, wherein the payload data is transmitted to a second computer by the intermediary server based on the token and the intermediary server is coupled to the second computer over a mobile network”</p> <p>Structure:</p> <p>Indefinite</p>

V.(14) “a processor configured for”
('771 Patent, Claim 26)
(Dkt. No. 82, Ex. B, at 60–61; Dkt. No. 104-1, at 51–52.)

Plaintiff's Proposed Construction	Defendant's Proposed Construction
The term does not invoke 35 U.S.C. § 112 ¶ 6. No construction is necessary, the term is not subject to § 112 ¶ 6, and is not indefinite.	<p>This is a means-plus-function term under 35 U.S.C. 112 ¶ 6.</p> <p>Function:</p> <p>“receiving a token issued by an intermediary server; and transmitting a transaction message comprising payload data to the intermediary server, wherein the payload data is transmitted to a second computer by the intermediary server based on the token and the intermediary server is coupled to the second computer over a mobile network”</p> <p>Structure:</p> <p>Indefinite</p>

(1) The Parties' Positions

Plaintiff argues that the “processor” terms connote structure and also are presumed not to invoke 35 U.S.C. § 112, ¶ 6. (*See* Dkt. No. 97, at 39–45.)¹⁶

Defendant responds that “[e]ach of the ‘processor’ terms recite functionality without definite structure,” and “[t]he mere disclosure of a general-purpose processor is not sufficient structure.” (Dkt. No. 100, at 40.) As to the threshold question of whether 35 U.S.C. § 112, ¶ 6 applies, Defendant urges that “[n]othing in the claim language suggests the ‘processor’ is a particular, special-purpose processor programmed for such functions. Absent specific programming, a general-purpose processor is insufficient structure to perform these functions” (*Id.*, at 41.) Finally, as to the application of 35 U.S.C. § 112, ¶ 6, Defendant argues that “[t]he failure to disclose the necessary corresponding structure for performing each of the claimed functions afflicts each of the ‘processor’ terms” and renders the terms indefinite. (*Id.*, at 45.)¹⁷

Plaintiff replies that “Apple’s argument is contradicted by the Federal Circuit’s recent controlling precedent that a ‘general purpose computer’ or a ‘central processing unit’ is sufficient structure and not subject to §112(6).” (Dkt. No. 102, at 15 (citation omitted).)

At the March 13, 2020 hearing, the parties presented no oral arguments as to these terms.

¹⁶ Plaintiff also cites IPR proceedings in which Defendant did not assert indefiniteness as to the present disputed term, but Plaintiff fails to show how this is relevant or probative in the present litigation. (*See* Dkt. No. 97, at 43–44.)

¹⁷ As a procedural matter, Defendant also submits: “Critically, SEVEN chose to omit proposed structure from its claim construction disclosures and in its expert’s declarations (Dkt. 82-2 at 1 n.1), admitting in its brief that its failure was deliberate. SEVEN Op. Br. at 45. Thus, should the Court agree that § 112(6) applies to these terms, SEVEN has conceded their indefiniteness. SEVEN’s suggestion that the Court should allow it supplemental briefing to address the issue later ignores, at its own peril, the Court’s patent rules governing the timing for claim construction disclosures.” (*Id.*, at 45.)

(2) Analysis

Title 35 U.S.C. § 112(f) (formerly § 112, ¶ 6) provides: “An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” “In exchange for using this form of claiming, the patent specification must disclose with sufficient particularity the corresponding structure for performing the claimed function and clearly link that structure to the function.” *Triton Tech of Tex., LLC v. Nintendo of Am., Inc.*, 753 F.3d 1375, 1378 (Fed. Cir. 2014).

“[T]he failure to use the word ‘means’ . . . creates a rebuttable presumption . . . that § 112, para. 6 does not apply.” *Williamson v. Citrix Online LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (citations and internal quotation marks omitted). “When a claim term lacks the word ‘means,’ the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* at 1349 (citations and internal quotation marks omitted).

Williamson, in an *en banc* portion of the decision, abrogated prior statements that the absence of the word “means” gives rise to a “strong” presumption against means-plus-function treatment. *Id.* (citation omitted). *Williamson* also abrogated prior statements that this presumption “is not readily overcome” and that this presumption cannot be overcome “without a showing that the limitation essentially is devoid of anything that can be construed as structure.” *Id.* (citations omitted). Instead, *Williamson* found, “[h]enceforth, we will apply the presumption as we have done prior to *Lighting World*” *Id.* (citing *Lighting World, Inc. v. Birchwood Lighting, Inc.*,

382 F.3d 1354, 1358 (Fed. Cir. 2004)). In a subsequent part of the decision not considered *en banc*, *Williamson* affirmed the district court's finding that the term "distributed learning control module" was a means-plus-function term that was indefinite because of lack of corresponding structure, and in doing so *Williamson* stated that "'module' is a well-known nonce word." 792 F.3d at 1350.

Defendant urges that "[i]f the specification discloses that the claimed function is performed by a programmed general-purpose computer, 'the specification must disclose an algorithm for performing the claimed function.'" (Dkt. No. 100, at 43 (quoting *Williamson*, 792 F.3d at 1352).) Defendant relies on, for example, *In re Katz*, which noted that a general-purpose computer may be insufficient structure for claims involving "specific functions that would need to be implemented by programming a general purpose computer to convert it into a special purpose computer capable of performing those specified functions." *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011).

The algorithm requirement, however, is a requirement if 35 U.S.C. § 112, ¶ 6 applies. Defendant's argument that 35 U.S.C. § 112, ¶ 6 applies because the patents fail to disclose algorithms is unconvincing because the argument pertains to issues not directly relevant here, such as perhaps enablement, written description, or sufficiency of corresponding structure:

The overall means-plus-function analysis is a two-step process. Naturally, there is some analytical overlap between these two steps. In the first step, we must determine if the claim limitation is drafted in means-plus-function format. As part of this step, we must construe the claim limitation to decide if it connotes "sufficiently definite structure" to a person of ordinary skill in the art, which requires us to consider the specification (among other evidence). In the second step, if the limitation is in means-plus-function format, we must specifically review the specification for "corresponding structure." Thus, while these two "structure" inquiries are inherently related, they are distinct.

Apple Inc. v. Motorola, Inc., 757 F.3d 1286, 1296 (Fed. Cir. 2014) (emphasis added), *abrogated on other grounds by Williamson*, 792 F.3d 1339.

Turning first to the disputed terms reciting a “non-transitory computer-readable [storage] medium” with “instructions” to be implemented by a “processor,” namely above-identified Terms V.(5), V.(10), and V.(13), these terms do not use the word “means,” and are not “in a format consistent with traditional means-plus-function claim limitations.” *Williamson*, 792 F.3d at 1350; *see, e.g., Kit Check, Inc. v. Health Care Logistics, Inc.*, No. 2:17-CV-1041, 2019 WL 4142719, at *9 (S.D. Ohio Aug. 30, 2019) (rejecting argument to apply 35 U.S.C. § 112, ¶ 6 to a claim directed to “a non-transitory, computer readable medium storing computer-executable instructions” that can be “executed by one or more processors”; noting that “the term ‘processor,’ used in this way, does not invoke means-plus-function claiming”).

Further, Plaintiff submits evidence that the term “processor” has structural meaning in the relevant arts. (*See* Dkt. No. 97-58, Dec. 20, 2019 Jones Decl. at ¶¶ 88–89; *see also* Dkt. No. 97, Exs. VV, WW, XX & YY (technical dictionary definitions of “processor”).) Disclosures in the specification are consistent with this structural meaning, such as the following disclosure in the ’029 Patent:

In general, the routines executed to implement the embodiments of the disclosure, may be implemented as part of an operating system or a specific application, component, program, object, module or sequence of instructions referred to as “computer programs.” The computer programs typically comprise one or more instructions set at various times in various memory and storage devices in a computer, and that, when read and executed by one or more *processing units or processors* in a computer, cause the computer to perform operations to execute elements involving the various aspects of the disclosure.

’029 Patent at 42:6–16 (emphasis added).

As to the remaining disputed terms, Defendant’s response brief discusses two example claims. First, Claim 11 of the ’914 Patent recites (emphasis added):

11. A digital content server comprising:
a memory; and
a processor configured for:
receiving a unique authentication token from each of a first device and a second device;
transferring to a content selection interface on the first device an indication of content available from a content provider;
transmitting selected content to the first device in response to a user selection of content available from the content provider at the first device; and
automatically transmitting the selected content to the second device,
wherein the selected content is transmitted to the first device through a first connection and to the second device through a second connection distinct from the first connection.

Second, Claim 1 of the '029 Patent recites (emphasis added):

1. A mobile device having an established multiplexed connection for optimizing communications, the mobile device comprising:
a memory; and
a processor configured for:
receiving a selection from a user whether to enable an application for fetching;
communicating over the established multiplexed connection;
predicting an activity session based on application access history, wherein the application access history includes historical application usage;
fetching data for the application before the activity session to support the predicted activity session before beginning the activity session, wherein the application is operating in a background of the mobile device, wherein the data is fetched if the fetching is enabled by the user selection for the application, wherein at least some of the fetched data is for background requests made by the application on the mobile device;
wherein a second connection is established that is other than the established multiplexed connection with the mobile device,
wherein fetching data occurs over the second connection;
and
disconnecting from the second connection.

In both of these claims, the term “processor” refers to a well-known structure, and the claims recite that this well-known structure has a particular configuration in the claimed invention. *See, e.g., Finjan, Inc. v. Proofpoint, Inc.*, No. 13-CV-5808, 2015 WL 7770208, at *10-*11 (N.D. Cal. Dec. 3, 2015) (“content processor” had specific structure because the claim described interaction with the transmitter and receiver, and because the specification identified the component’s location). Further, these “processor” terms refer to executing instructions, and such program code has been found to connote structure. *See, e.g., Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1008 (Fed. Cir. 2018) (finding that “user interface code” and “program” were not nonce words; noting that “the mere fact that the disputed limitations incorporate functional language does not automatically convert the words into means for performing such functions”); *Trading Techs. Int’l, Inc. v. IBG LLC*, No. 10 C 715, 2019 WL 6609428, at *6 (N.D. Ill. Dec. 5, 2019) (Kendall, J.) (“‘program code’ is not merely a nonce word but does claim sufficient structure”).

Thus, although the term “processor” may refer to a broad class of structures, this breadth does not necessarily render the term non-structural. *See Skky, Inc. v. MindGeek, s.a.r.l.*, 859 F.3d 1014, 1119 (Fed. Cir. 2017) (finding “wireless device means” not a means-plus-function term, noting that “it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies the structures by their function”) (quoting *TecSec, Inc. v. Int’l Bus. Machs. Corp.*, 731 F.3d 1336, 1347 (Fed. Cir. 2013)).

This finding is consistent with the above-discussed intrinsic and extrinsic evidence as well as with principles articulated by the Federal Circuit prior to the abrogated *Lighting World* decision. *See Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (finding that “detent mechanism” was not a means-plus-function term because “‘detent’ denotes a type of

device with a generally understood meaning in the mechanical arts, even though the definitions are expressed in functional terms”; “It is true that the term ‘detent’ does not call to mind a single well-defined structure, but the same could be said of other commonplace structural terms such as ‘clamp’ or ‘container.’ What is important is not simply that a ‘detent’ or ‘detent mechanism’ is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art.”); *see also Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1319–21 (Fed. Cir. 2004) (in finding “first circuit,” “second circuit,” and “third circuit” were not means-plus-function terms, noting “language reciting their respective objectives or operations”); *Personalized Media Commc’ns, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 705 (Fed. Cir. 1998) (“Even though the term ‘detector’ does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as ‘detectors.’”).

Defendant cites this Court’s decision in *St. Isidore*, which found that the presumption against means-plus-function treatment under 35 U.S.C. § 112, ¶ 6 had been rebutted because “[i]n the context of the ‘processor configured to . . .’ terms, . . . each processor is defined only by the function that it performs.” *St. Isidore Research, LLC v. Comerica Inc.*, No. 2:15-CV-1390-JRG-RSP, 2016 WL 4988246, at *14 (E.D. Tex. Sept. 19, 2016). The terms at issue in *St. Isidore* were “a processor configured to verify the authenticity of the account access request based on the response” and “a processor configured to identify a second device associated with the account.” The disputed terms in the present case, by contrast, such as the examples set forth above, recite numerous operations, interrelationships, and configuration details that underscore the structural meaning of “processor” in the context of the claims of the patents-in-suit. *St. Isidore* itself noted that “[t]he Court has typically found ‘processor’ to connote sufficient structure to avoid the application of § 112, ¶ 6 in different circumstances.” *Id.*, at *15. The Court’s analysis in the

SyncPoint case, cited here by Plaintiff, is applicable. *See SyncPoint Imaging, LLC v. Nintendo of Am. Inc.*, No. 2:15-CV-247, 2016 WL 55118, at *18–*21 (E.D. Tex. Jan. 5, 2016).

A recent decision of the Federal Circuit is in accord:

As used in the claims of the '591 patent, the term “digital processing unit” clearly serves as a stand-in for a “general purpose computer” or a “central processing unit,” each of which would be understood as a reference to structure in this case, not simply any device that can perform a particular function.

Samsung Elecs. Am., Inc. v. Prisua Eng’g Corp., 948 F.3d 1342, 1354 (Fed. Cir. 2020). The *Diebold* case cited by Defendant does not compel otherwise. *See Diebold Nixdorf, Inc. v. Int’l Trade Comm’n*, 899 F.3d 1291, 1302 (Fed. Cir. 2018) (“there is no evidence—in the form of dictionary definitions or otherwise—that ‘cheque standby unit’ was reasonably well understood by persons of ordinary skill in the art to refer to a structure or class of structures”); *see also id.* at 1298–1302 (discussing authorities). Finally, the opinions of Defendant’s experts are unpersuasive. (*See, e.g.*, Dkt. No. 97, Ex. Y, Dec. 20, 2019 Wicker Decl., at ¶¶ 38–44; *see also id.*, at ¶¶ 25–31, 56–61, 97–103, 109–113 & 122–127; *id.*, Ex. CC, Dec. 20, 2019 Porter Decl., at ¶¶ 36–43, 57–60, 73–76 & 130–132; *id.*, Ex. FF, Dec. 20, 2019 Houh Decl., at ¶¶ 93–98.)

The Court therefore finds that the disputed terms are not governed by 35 U.S.C. § 112, ¶ 6, and Defendant submits no alternative proposed construction. The Court accordingly rejects Defendant’s indefiniteness argument, and no further construction is necessary. *See O2 Micro*, 521 F.3d at 1362; *see also Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes above-identified terms V.(1) through V.(14) to have their **plain meaning** (apart from the Court’s construction of any constituent terms).

XVI. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

So ORDERED and SIGNED this 31st day of March, 2020.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE